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MODERN NIRVANAISM

WM DANMAR

THE PHILOSOPHY OF LIFE AND DEATH

PUBLISHED BY WM DANMAR

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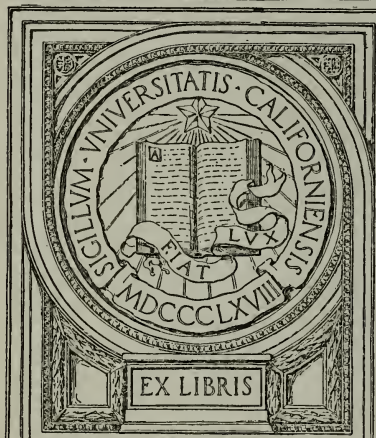

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MODERN NIRVANAISM

OR

THE PHILOSOPHY OF LIFE AND DEATH

BY

WILLIAM DANMAR

1920

SECOND PREFACE

Since this book came out the first time in 1914 the uproar of the war left the living people but little patience for philosophy. To kill people without caring about what became of the killed was the program. Our world is now quieting down and the questions of what is life and what is death are asked again with increased intensity. Accordingly the public interest in "spiritism" is growing and the scientific interest must follow.

By putting out another thousand copies of this work it is intended to reach a larger number of educated, independent thinkers, who are able to set aside their prejudices and open their minds for newly discovered facts and truths, with the naturalistic explanation of the so-called "spirit world", an explanation or theory which stands with one foot on the empirical laws of nature of modern natural philosophy and with the other foot on the results of scientific researches in the experimental and theoretical fields of mediumism and spiritism and the past and present philosophies of life and death.

The antiquated philosophies of materialism and supernaturalism, dating from unscientific periods and dark ages, are opposed to the spiritistic facts because they do not agree with their mechanistic theories of nature. The materialists oppose "spiritism" mostly because the "spirits" are supposed to be supernatural and the supernaturalists oppose it because spiritism shows them to be natural.

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Theories and beliefs are in the way of the general acceptance of the facts, for which reason the fight had to be extended to the theoretical field.

A revolution of philosophy and the establishment of a new, and, this time, scientific philosophy, based on facts and proven natural law, was called for by the situation. A reward of a thousand dollars has been offered six years now for the disproof of the scientific fundamental principle of this new philosophy, including the new naturalistic theory of ghosts, called "modern nirvanaism". A few trials at that disproof were in vain and ended before they came to court. The basic principle is sound and the system of explanations erected thereon is firm.

That basic principle o modern nirvanaism, the only naturalistic (instead of supernaturalistic) theory of "spiritism", unites all the scientifically established empirical laws of nature, such as Boyle's law in physics, Ohm's law in electrics, Dulong and Petit's law in chemistry and other proven laws, into the one grand law of nature of the inversity or inverse proportionality of the world's counter forces and of their constant force-product, which is the essence of the spacefilling worldentity.

This newly discovered force product, named galom, absolute and constant in time and space, shows the worldstuff to be different from the stuffs of the old philosophies which stuffified the dynamic factors instead of their product. The spacefilling worldbeing is, therefore, neither a motherstuff, materia or matter, nor a fatherstuff, spiritus or ether, nor a pair of worldsparents, matter and spirit, but it is a hermaphrodite, a motherfather-stuff, the last possible and finally proven proposition of philosophy in its shape of sexualistic symbolism.

On this definitely established basis of the world's hermaphroditism stands the proof that nature is caused by and based on the existing inequilibrity of hermaphroditism or the antipolarity of the various stuffconditions and that nature is the process of equalizing these antipolar conditions and equilibrating the towardly opposite forces.

The daily experienced counterforces in nature are, on the one side, the passive materity and, on the other side, the active paterity, inseparately correlated. Materity is identical with "materiality", passive resistance, coolness, hardness, feminity, the passive forces in general; paterity is identical with "spirituality", active heat in its many forms, such as heat in temperature, "negative" electricity,

latent and chemical heat, masculinity, the active forces in general.

Materialism stuffifies the passive force and calls that forcestuff matter and paterialism stuffifies the active force to ether or spiritus. Paterialism received the symbolical name of spiritualism because it started with the idea that the life-generating sunshine was the breath or spiritus of the Sungod, Jehova, and then generalized that spirit to a spacefilling,all-embracing world-stuff of which matter was but a lower condition.

Mind is not a natural force but was conceived either as a supernatural entity, as in the dualism of "matter and mind", or as the minding ability and function of brains, as in modern physiology. To conceive the ghosts or "spirits" as mind-beings is supernaturalism, the most reactionary mistake of humanity, which has held back ghostology so long from becoming a branch of science.

The highest form of nature, or the equalization of antipolar conditions, is organic life and the result of this process is the natural ghost-world, located in the shadow of the earth, consisting of general worldstuff but in a condition of dynamic equilibrium, apolarity, nirvana and lasting happiness. All life means striving for nirvanal happiness, and, accordingly the ghosts assure us of their happiness. All spiritistic facts are in perfect harmony with this naturalistic ghost theory. I have in vain defied the mentalists, wrongly called "spiritualists", who carry supernaturalistic notions from the churches into spiritism, where they do not fit the facts, to produce a single established fact or modern spiritism which contradicts nirvanism. All they can offer is a lot of stale phrases from the dark ages.

It is useless to argue with people who prefer belief to science, but others enter "modern spiritism" who welcome a scientific explanation. Many progressive "spiritualists" have appreciated and even accepted "the modern nirvana". To show how the new theory of ghosts works on them, I quote here from his letter some remarks of Rev. Charles Hall Cook, a spiritistic researcher with an experience of over 25 years in the mediumistic branches of "material isations, apports and spirit photography", whose name is well known to the spiritualists and physic researchers. He writes:

"Have read your book on 'Modern Nirvanaism', re-read it, studied and re-read parts of it over again. It is a book that should be read and studied a great deal. It would be a folly on my part even to think of attempting a critisism as the philosophy is wholly new to me, except the facts, normal and supernormal, that sustain

it. Have searched long and ineffectually for such a philosophy but my disappointment is more than compensated in reading your book. It has been immensely helpful to me. I am more than pleased that it gives such a reasonable and satisfactory explanation of the existence of 'the ghosts'. It is this that makes it acceptable to me."

The "modern spiritualists" or spiritists received "Modern Nirvanaism" in an appreciating, though not always comprehending manner. The main object of their organizations and periodicals is to establish and make known the fact of the existence of the spirits based on the mediumistic manifestations of them. In regard to a theory or philosophy of the spirits, the mentalistic is predomenant because it was the only one on hand though it is supernaturalistic.

But from the beginning of modern spiritism there has been a strong inclination to naturalism. "The spirits are natural beings" is the position of the experienced spiritists which makes their movements so dangerous to the supernaturalists who try to scare the people away from it by telling them that it is the work of the devil and associates.

Since the spirits or ghosts are natural beings their investigation of course is a matter of natural philosophy in its all embracing sense. The only naturalistic theory of the beings in the invisible department of organic existence has been and is now *nirvanaism*; the study of this explanation, therefore, is recommended to those who want to be "up-to-date".

Modern Nirvanaism

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WILLIAM DANMAR

5 McAuley Avenue **Jamaica, New York City**

PREFACE.

In the eventful year of 1883 two experiences coincided which caused me to object to the philosophies of the past and start the elaboration of a new philosophy. The one experience was *"spiritism"* and all it involved under the most favorable conditions; the other was *the discovery of inverse proportionality as the law of the world's forces.*

When experiencing the "spiritistic facts" which I had to admit as being true if I had confidence in my own senses, abilities and judgment, I confronted the other fact that *all philosophical teachings of the past and present,* and also the teachings of *"spiritualism"* as represented by the churches *were against these facts.* Especially was it the great mediumistic phase of *"materialisation"* which was condemned from all sides while it was just this phase which interested me most.

It soon became a question with me whether philosophy in all its systems was wrong or whether my experiences in the seance rooms were delusions and my senses unreliable. I was young and unhampered by prejudical training and simply took the position that, since the various speculative and other theories and philosophies as they stood did not in any way agree with the facts that I had tested and found true, all the philosophies of the past were untrue and it was time to start *a new, really scientific philosophy,* not based on hypotheses, but on facts and laws, which will not deny the facts of which I had convinced myself, but explain them scientifically.

At about the same time, through some operations in drawing, I found the figure of the law of the constant product of inverse proportionality and proclaimed this as *the fundamental principle of scientific philosophy* which in my case was mainly to be used for the explanation of the so-called spiritistic facts, though it was evident that, if true, it would be fundamental for a general explanation of the world.

I commenced new experiments with mediums and ghosts which soon disproved the theory of "spiritualism," when applied to such stuffy ghosts as I could lock up with glass-plates.

From my figures, representing the new principle, I concluded that *materialism* and *spiritualism*, the opposite extremes, are equally wrong and that the truth is somewhere in the middle between them, but not as an addition of the two, making dualism, without neutralizing the individuality of each of them, but as an equalization of their tendencies to a new independent philosophy which excludes the extremes and does not require the ghosts to consist of "spirit" and change to "matter" in order to be perceptible. I simply denied the existence of "matter and spirit" as impossible force-stuffs.

In 1886 I finished a little work which was published early 1887 and was mailed gratis to many people. The title of it was "The Tail of the Earth;—or The Location and Condition of the Spirit-World." It contained most of the principal ideas in a rough shape that are developed in this present work.

A part of the new philosophy, referring to gravity I published in a German work, called "Die Schwere; oder Isaac Newton's Irrthum". It was printed in Zurich in 1897.

In the following years a number of articles by me on the new ghost theory were published in American, English and German spiritistic periodicals.

In 1903, a pamphlet written by me in 1902 in the shape of articles that appeared in a periodical in Leipzig, was published, the German title of which means: "Life and Death; or The New Theory of Ghosts". Of course, scientists and so-called philosophers who received copies, did not respond, because anything that smells of ghosts is below their "dignified" consideration and respectability.

All these years I experienced and observed that the official scientists, with few exceptions, cannot be induced to touch the ghosts. In Galileo's time they refused to look through his telescope; in our time they refuse to investigate mediumism for fear to find facts which contradict the teachings they get paid for.

Again I publish a work on the ghosts. But this time I challenge the sneering scientists by offering a reward for disproof of the basis of a ghosttheory, in order to place them where they belong with their cowardly hesitation. Opposition to all so-called laws of nature, theories and philosophies which do not agree with the existence of natural ghosts, and the development of a new philosophy, the first that is scientific and agreeable to all facts, is the object of this present work.

I invite scientific criticism, opposition and help. I ask those who will say something about this matter to send me their writings.

WILLIAM DANMAR,
5 McAuley Avenue, Jamaica, N. Y. City.

1914.

INVITATION

To invite attempts at disproof of the foundation of the new philosophy of galomalism, including nirvanaism, by offering a reward for a disproof may be new, but it seems to be a good way to overcome indifference or avoidance and compel opponents to take issue.

I hereby offer one thousand dollars as a reward to be paid to the person who disproves the law of the inverse proportionality of the world's forces and the constancy in time and space of the forceproduct called *galom,* as the fundamental worldlaw, thereby disproving galom as the absolute essence of the world.

In order to earn the thousand dollars and at the same time wipe out another mistaken attempt at philosophy it will be required to disprove Article IX and the appendix thereto. The guaranteed price is to be awarded by three judges in the usual manner. I feel perfectly sure that no one will earn this money, but I want a certain class of truth-avoiders to understand that here is something which they need not try to kill with avoidance, phraseology or intimations, such as used against the spiritists. They must disprove it or admit it or be silent. They will be silent, but others will speak this time. If galom is the world's essence then galomalism and nirvanaism are true.

The Author.

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INTRODUCTION

In order to meet the needs of both the popular reader, who wants mainly an illustration of the leading arguments and conclusions in a shape that appeals to his understanding, and also the scientific reader, who requires mathematical proofs, this book consists of 32 articles which everybody who is interested in philosophy can follow, and an appendix of figures and brief proofs of important points in the articles.

The principal object of this work is to explain the existence of the ghosts. But such an explanation is necessarily philosophy and, if the explanation is new, it must be a part of a new philosophy based on a new fundamental principle.

The principle of this new philosophy is not a hypothesis, but a proven law found logically and established on accepted facts of modern official science. The proof of galom as the constant product of the opposite forces of the worldstuff and the essence of this stuff is in my own estimation the most valuable part of my work, because it solves the problems of ontology and metaphysics and furnishes a basis for a new theory of nature, which is neither mechanical nor teleological and neither monistic nor dualistic.

I claim for galomalism the character of science in the sense of proven knowledge and the only reason why I still call it philosophy is that I have not the time to consider all the definitions of "philosophy" and "science" and then decide which is the right one. But, at least, galomalism is no speculative philosophy based on an assumption and leading to a belief, but a scientific philosophy, based on facts and logic and leading to knowledge, to a complete knowledge of the world in principle. If this claim seems too excessive, then there is the Invitation!

I was compelled to introduce a number of new words, as terms for new concepts not named heretofore. It will be seen that they are needed in order not to express the new notions

wrongly with old terms of disputable meanings, which would lead to misunderstandings. The new terms and their definitions are developed in the text and also given, for reference, in the vocabulary in the appendix, which also contains the definitions of old philosophical terms in the sense as I use them—such terms as stuff, matter, spirit, ghost, force, energy, heat, cold, magnetism, etc.

It is a pecularity of a new philosophy that it reconstructs old terms and creates new ones. Yet a change of terminology alone makes no new philosophy. The first requirement for such is a new fundamental principle. I have emphasized the importance of the new principle represented by the word *galom* by offering a reward for its disproof. Modern nirvanaism stands and falls with this new principle. There is nothing in the nature of revelation, nothing hypothetical or mysterious about galomalism; it is merely a matter of facts, logic and science. It would easily succeed and be accepted by the scientific world if there were not this one circumstance about it that those who accept galom will have to accept the ghosts also. *The ghosts!*

MODERN NIRVANAISM

I. THE IMPORTANCE OF A THEORY.

A theory is a consistent system of explanations of connected facts, based on a fundamental principle which has been acquired by means of logical induction.

A theory of a certain branch of facts is, therefore, a part of a general philosophy; it is a spiritualistic, materialistic, dualistic or other theory. If a theory is based on a hypothesis it is *speculative* and generally untrue, but if based on a scientific law it is true and *scientific* if consistently developed.

A truth is an idea or a theory which agrees with its object. But I shall not start with a consideration of the much misused "theory of knowledge," which has importance mainly for those who first split the world in two, a mental and a physical, and then cannot explain how the one can understand the other. I do not make that split. (A-1.)

A scientific theory must contain or make possible the explanation of facts in a consistent manner without conflicting with or excepting a single one of them, which is generally accepted as a good test of the truth of the theory.

There is no other realm of human research where theories and beliefs play such important parts as they do in the researches appertaining to life and death. The entire opposition against so-called "spiritism" is of theoretical nature, and the general acceptance of the facts represented by "spiritism" will be hampered for a long time yet by theoretical prejudice unless met by a new theory of ghosts, which rests entirely on the ground of the natural sciences and opposes supernaturalism in all its phases.

The immense material of mediumistic facts which has been gathered in the second half of the nineteenth century and is still increasing through the reports of thousands of earnest and able researchers, is so overwhelming that Prof. Crookes said of it, there is no other fact of science which has been so abundantly demonstrated as the mediumistic or spiritistic facts.

When we consider that these facts are not new, but have been demonstrated and known at all times and among all nations, and always with the same conclusion, namely, that it is ghosts or "spirits" who cause them, then it would be utterly inconceivable why the people should not all accept them, but to a great part deny and condemn them, if we would not know what powers theories and beliefs have over the minds, and that it is purely theoretical prejudice which makes men oppose these facts.

The *materialists,* controlling science, declared the entire mediumism fraud, because, according to their theory of the world, human life is a resultless mechanical play of "material atoms," composed accidentally to a human machine which drops apart when dying without any phoenix arising therefrom.

The *spiritualists,* controlling religion, declared the modern mediumism of the people fraud, because, according to their doctrine, "spirits are supernatural beings," who cannot manifest physically, especially not through materialization.

Between these two theoretical chairs the old and the modern spiritism came to sit on the floor.

The experiences during the last half century have shown plainly enough that the mere accumulation of mediumistic facts, testified to by ever so many eminent men, is insufficient to overcome the theoretical prejudices against them. *"It is not possible!"* Against this denying judgment no empirical proofs and no amount of favorable reports of seances have been able to conquer. And the more dogmatical the opposing theory the harder it is to overcome the belief in it and accept the facts.

There is only one way to remove this theoretical wall of opposition, and that is by tearing down the old theories, materialistic and religious, and put in their stead a scientific theory which has no hypothesis nor revelation for its foundation, but a scientific law, and which opposes no facts but explains them.

The nirvanaistic theory of ghosts, old and modern, outlined in this work, is the only *naturalistic* (instead of supernaturalistic) theory there is, the only one which shows the so-called "spirits" as *natural beings.* It means that the ghosts

are physical, substantial bodies and no abstract minds, no psychical entities, no mental beings. It is true that there is nothing supernatural, but there are ghosts nevertheless who exist and manifest themselves in spite of all false theories, beliefs and denials that have been hung over them and now require to be torn away in order to show the ghosts in their natural light.

The principal questions which a naturalistic theory of ghosts has to answer are those regarding the substance the ghosts consist of and the conditions of their existence; also those regarding the relations between our world and theirs, if they are two, and the location of their world.

It is not a mere scientific question that we are concerned with, but also one of personal and human interest, because everybody would like to know what becomes of him when he dies. Yet with us sentiment shall not interfere with the establishment of truth. After truth is known, sentiments may be attended to if in conformity with the truth.

No other problem has been treated so unscientifically and been answered so unsatisfactorily as the one regarding our own future fate. *Supernaturalism* has covered this matter, its last resort, with so much darkness and created such awe and fear of ghosts that often it stands in the way of level-headed investigation. But the ghosts are no "higher beings" beyond our reach, nor are they "ghastly spectres" which should cause us to stand "aghast" instead of attacking them scientifically.

There is much in the nirvanaistic ghost theory which does not agree with the extravagant reveries of *the supernaturalistic hypothesis of spirits,* but that does not mean that nirvanaism is wrong. Of course, those who are satisfied to believe, can not be helped, but those who prefer science to belief, and they form now a large percentage of the people, will study the given facts, inductions, proofs, laws and science carefully before passing judgment.

Modern nirvanaism is no revelation, and the assertions and contradictions of manifesting "spirits" do not affect it. The ghosts have been asked long enough to give a plausible explanation of their world and have not done so. What can you expect of the dead?

In regard to Zoellner's unsuccessful attempt to explain the mediumistic facts with the hypothesis of a fourth dimension of space I wrote in my first work, *"The Tail of the Earth,"* published in 1887, as follows:

"The only earnest trial that has been made so far to explain the mediumistic phenomena on another basis than that of abstracted minds and in harmony with the positive natural sciences is that of the eminent astrophysicist, Professor Zoeller, of Leipzig. He proposed the hypothesis of a fourth dimension of space. It is a hypothesis as every other hypothesis: the phenomena are for the senses and memory only, but the reason wants theories and laws, and if such are not to be had hypotheses must for the time being fill the place. If the hypothesis is one the probability of which is intended to be sustained by facts, it leads to investigations, and in that way does its good even if it be false. Zoellner's valuable experiments with the medium Slade, which were partly calculated to advance his hypothesis, were very successful in exploring several until then unknown facts in regard to mediumship, and have convinced many people of the existence of beings in another life and of the fact that they can manifest themselves through the aid of mediums in various ways; but as to the hypothesis, he himself said that we could not imagine a fourth dimension of space. Yet he has argued and founded his hypothesis as well as the atomic hypothesis ever was. I cannot accept either hypothesis and am in a position to explain the facts referred to without a new hypothesis, merely on the mathematically established law of nature."

II. THE GHOSTS AS GUESTS.

Being opposed to the doctrine of supernatural spirits as "modern spiritualism" has inherited it from the institution of the dark ages, the church, the nirvanaist must be careful that, while explaining the theory of natural ghosts, no words are used which carry with them meanings of the old doctrine because they will cause misunderstandings.

For this reason the name of "spirits" for the beings in the invisible department of organic existence must be set

aside and the naturalistic and unmistakable name of ghosts be forwarded. The term *ghost* is independent of supernaturalism, but its meaning has been misconstrued, making it necessary to restore it to its true meaning and importance.

In order to show that the word *ghost* was originally derived from the word *ghast* or *gast,* meaning *guest,* I begin with the Aryan word *ghas,* which means to eat. The eater was called a *ghast* or *gast,* especially when he was a stranger. This word reaches back into prehistoric times, and is apparently very old. The same meaning as ghast had the Westindogermanic *ghotis,* from which the Latin *hostis* was derived.

But in olden times the people offered or sacrificed meals not only to strangers, or hostises from this world, but also to some from the invisible world, to buy their friendship. Feeding the dead is fully in harmony with experiences in modern mediumism, according to which there can be no doubt that the ghosts feed on the vapors of our food. Male ghosts like the vapors of wine, beer and other favorite drinks of their sex; female ghosts like sweets, and all who have not gained ripeness enjoy the vapors of a good square meal.

Food is the material for their development as well as for ours. The living are feeding the dead. Before supernaturalism spoiled the natural intercourse between the living and the dead, feeding the latter through evaporation of food over a hot fire was a general custom.

Whether the beings which were fed in this manner now were gods, semigods,, angels, demons, etc., in regard to those offered evaporated meals or sacrifices, they were all guests (gasts, ghasts, etc.) and were called so.

The word *gast or ghast* underwent a number of dialectic changes. In the Northgerman language *gast* became *gest,* but it signified only a guest from this world, while for a being in the invisible world the old name *ghast* was maintained. When Christianity was introduced in the Germanic lands, sacrifices to the invisible beings were officially abolished, because it was reported that the last great sacrifice that was enough forever, that of God's own son, had been made. The ghasts, now deprived of their special vapor meals, ceased to

be invited guests, but kept their old name, now simply meaning *the dead.*

The Anglosaxons brought these two words, *gest* and *ghast,* to Brittania. When the Normans came they made the word *gest* suit their French accent by inserting an *u,* thereby *creating* the English word *guest.* The Germans still have the word *Gast.* But the name ghast for the invisible beings was retained by the Anglosaxons.

The further development of the Germanic languages was such that wherever an old Germanic word had an *a* in the middle it became an *o* in English and an *ei* in German; for instance, *ham* became home and Heim, *stan* became stone and Stein, and so did *ghast,* respectively *gast,* become *ghost,* and *Geist.*

It does not matter to what ugliness the dark superstitious ages under the reign of the Church may have distorted the term, *ghost* is the only true historical English name for a being in the invisible sphere of organic existence, the only one which is unmistakable in its meaning. It is of a purely empirical character, having been originated in experience; it is, therefore, free from speculative theories or philosophies, simply signifying a dead person without in any way saying what its being and nature may be.

But the Latin term *spirit* had a development far away from that of the English *ghost.* It did not originate as a name for a ghost at all, but for a supposed entity of a philosophy, as we shall see when considering spiritualism.

When Luther translated the Bible from Latin into German he could not find a German term for *spiritus sanctus* (uncommon breath), because the German people had no such concept, especially not when taken in its symbolical sense. He selected *holy ghost* (wholesome, healthy ghost)—heiliger Geist—for a translation, an error which has caused more confusion and harm than any other error in translation ever made. Since then spirit became ghost and the ghosts became spirits, which though has not become customary with the Germans whose spirits are still *Geister,* but not in the naturalistic sense.

Being opposed to the spiritualistic theory of ghosts, it would be wrong for nirvanaists to call the ghosts spirits. We

limit ourselves to the true English word *ghost*. Empirical "spiritism" becomes mere mediumism and theoretical spiritism or spiritualism becomes nirvanaism with us.

A distinction has been made between empirical spiritism and philosophical spiritualism, but it is not right to call the ghosts spirits unless the spiritualistic theory of them is accepted. If we say: *the ghosts are not spirits*, we are surely not spiritists. Still, we have to use the word "spiritism" quite often with the above reserve.

Having now separated mediumism and nirvanaism from spiritism and spiritualism, I am ready to apply to the ghosts the new theory which is really not new, but in some respects the oldest and the first; it is the theory involved in *old nirvana*, the only naturalistic theory there has ever been, but which was overgrown and buried through many centuries by the supernaturalistic weeds of mentalism, commonly called spiritualism. It was supernaturalism that estranged the ghosts to science. The proof now that the ghosts are natural beings, or, more correctly, products of nature, will make this matter agreeable to real scientists.

III. NIRVANA AND PHOENIX.

Modern nirvanaism, which I am getting ready to expound, is in the main of the meaning that nature, including organic life, is the world-process of equalizing the antipolar conditions of the substances in the world, and equilibrating the opposite forces of the worldstuff, and that the ghostworld, being the final product of this process, is in a state of dynamic equilibrium, rest and happiness.

It is now an agreeable circumstance that the earliest, and the latest, or the prehistoric, and the modern theories of the condition of the ghosts, in the main, agree. Let us, therefore, first consider the old theory:

In prehistoric times when the people were still relying for their knowledge and ideas on experience only and did not yet confuse the abstract with the real, there were already experiences with ghosts, the amount of which surely overweighed our modern mediumism many times. Unblinded by theoretical prejudice, the people took the facts as they came

and drew their conclusions in a direct and simple manner, which in regard to the condition of the ghosts reached a result represented by the word *nirvana.*

Some materialists have come to the conclusion that nirvana means "not-being," non-existence, but, most likely, this mistake was caused by their prejudice because there is neither a historical nor linguistic reason for it.

The Aryan word, "nirvana," is composed of *nir,* which means *out* or *dis,* and of *vana,* which means *to blow.* The direct meaning of *nirvana* is, therefore, *to blow out,* respectively *to be blown out,* referring to a fire being extinguished. But its symbolical meaning is *the extinction of life,* the condition of not being alive.

In later times, nirvana was changed to *disvano, divano, dauthus, dauth* and then *death.* The two words are now quite different, but death is an offspring of nirvana. Nirvana and death, therefore, do not mean nihilation and non-existence, as the materialists try to make out, but they mean the condition of not-burning, inaction, rest, etc.

Between extinction, which refers to a timefilling process, and nihilation, which refers to a spacefilling thing, there is a difference. The stuff of lime and water exists also after being slaked, when the process it went through is extinguished, blown out. Slaked lime is dead lime, at least in this one respect. And so is nature the process of slaking the inequilibrating part of the worldstuff, and where this is accomplished, there is Nirvana, the zero of the process. The ghost world then consists of slaked stuff.

All desires, wishes, passions, volitions; all pains and troubles are extinguished in nirvana, because there the opposing forces are balanced, satisfied and at peace. "Life is burning"; the products of this organic combustion are the slaked ghosts, they burn no more, at least not when ripe; they are quiet, indifferent, satisfied and happy.

For this reason, the prehistoric people of Asia in their intercourse with ghosts perceived their condition of extinctness of life, nirvana, as the highest degree of happiness, because it means interior peace, "soulpeace," "heavenly blessedness," etc. In nirvana, finally, after all the pain and trouble, work and worriment in this "vale of misery,"

the soul finds peace. The "heavenly blessedness," as adopted by Christianity is also nothing but old nirvana.

It is to be emphasized that nirvana was not intended to mean anything supernatural. The insanities of supernaturalism were invented much later. The ghosts in nirvana are natural substantial organic bodies, consisting of stuff in a certain condition, pieces of the general world stuff. They are no abstracted minds, bodiless spirits, phychic entities, brainless intelligences, clumps of pure consciousness, no abstractions of any kind, but real, substantial, stuffy bodies. If stuff were matter, the ghosts would be "material," if it were ether, the ghosts would be etherial, anyway, they are stuffy.

The sensible naturalistic teaching of nirvana of the prehistoric people was overgrown in historic times by the supernaturalistic notions as represented by the psychism of some Greek and spiritualism of some Roman phantasts, yet it never became extinct with the common people, but remained with them to the present day as the expected happy condition in heaven.

Phoenix also came from prehistoric times. The Egyptians transmitted him in their records and traditions as a holy bird of the shape of an eagle with a beautiful purple and gilded plumage, but in the oldest hieroglyphic records, he is pictured as a bird similar to a heron. A phoenix originated in a holy fire. At the extinction of the fire, he arose from the ashes as the product of the combustion. He then flew up to heaven.

While it has been surmised that phoenix may be "a symbol of immortality," the connection of it with the old nirvana was not detected and many searchers after the meaning of this fine symbol, therefore, looked for other explanations, mostly astronomical. One of these explanations says that Phoenix symbolizes the transit of Mercury through the sun, but there is no historical background to it, neither would it be a sufficient object for such an elaborate and much favored symbol.

Life appeared to the prehistoric philosopher like burning, dying like blowing-out, or extinguishing and death like extinctness of the life fire. The product of this fire or life-

process in a man was a ghost who at the moment of dying or "blowing-out of the life fire" became free and arose from the corpse of earthly ashes. In order to symbolize the rise and upward motion of the ghost, which was a real body, it was pictured as a bird, which in later times became a human angel with wings on his shoulders. Phoenix is still with us, as well as nirvana.

Phoenix is the symbol for a ghost rising from the corpse or ashes of life.

Whether he was pictured as an eagle, a heron, a butterfly or an angel, is of no great importance, but it is important whether he originated but once and then existed for ever, or whether he came back about every 500 years to go again through the life fire and, renewed, rise again from the ashes, because here we meet an inconsistent addition to the old doctrine of nirvana.

This addition means the doctrine of reincarnation which became popular at the beginning of history. With our modern experiences in mediumism we can understand how it originated in misconceptions of some phase of "obsession," as well as how fetishism originated from observations of "table rapping" and similar phenomena.

True nirvanaism allows no such inconsistent addition. A product of combustion never burns again in the same way. There is no backward direction in the course of nature, direct equalization to the point of equilibrium is the only direction, as we shall see later.

Nirvanaism leads phoenix up to the heavenly quarters and lets him remain there forever in undisturbed rest, peace and happiness. For his lasting existence and final development, it is not required that he return to this life, as if all progress in nirvana were impossible. Modern nirvanaism, therefore, rejects the doctrine of reincarnation.

IV. MEDIUMISM.

The entire realm of so-called "spirit-manifestations" through the aid of mediums is called mediumism.

No manifestations from the ghosts without mediumism.

I established this sentence a quarter of a century ago.

Supernaturalistic idealists who do not like the idea that their "higher beings" should be dependent on much-slandered mediums for their communications, have tried to disprove this sentence, but without success.

"Spontaneous apparitions of ghosts" and "haunted houses" have been used as arguments against it. In many cases denoted by these terms, nothing can be proven the one way or the other, because the observers paid no attention to it if in any way mediums were connected with them, but in late cases of such doings of ghosts, which were investigated by "spiritualists," the mediumistic cause generally was found.

There are many persons who do not realize that they are mediums. When in a number of reported cases, they were removed, the demonstrations ended. But there is a feature of mediumism which makes it possible for the ghosts to haunt empty houses without there being mediums in them. It is the possiblity of transporting the medial substance from one house to another and storing and preserving it in dark undisturbed rooms.

If we call the medial substance taken from the mediums *medialum,* as has been done many years ago, then the "spontaneous spectres and spooks" are explained through the transportation, storage and occasional use of medialum by the ghosts. When a haunted house gets occupied, ventilated and lighted in all its rooms, closets, nooks and cellars, the spook often ceases very soon. But where conditions are favorable, the spooks may be repeated through centuries without any one particular medium being responsible for them—but mediumism is.

On account of the storage of medialum a medium has more success in her own house than in others. Modern nirvanaism furnishes the theoretical proof for it, why the ghosts have no power to demonstrate their existence to us without the aid of mediumism.

The mediums, therefore, are of special interest to us. America furnishes more and better mediums than the European countries, because here they have been least destroyed through burning of witches and imprisoning of obsessed. Our great mediums are nearly without exceptions offsprings of old colonial families whose first ancestors in this country

came in the 16th and 17th centuries, saving themselves from the great barbaric butchery of mediumistic persons in Europe. There have also been some 200 witches burned in New England, many of whom were probably good mediums, but the number is small compared with that of the witches murdered in Europe. After this terrible brutality of the Christian world, there came the prosecution of "the crazy" which is still doing away with many good mediums.

Besides the witches, there were the saints who were dying-out mediums. The ascetics and saints did not take part in progeneration, because they were ashamed of "the holy angels from heaven" whom they could often see in their dark rooms. Unnatural endeavors of holiness resulted. Their "holy life" meant their dying-out. The unmediumistic sinners became the parents of the next generation. Considering that mediality is hereditary and runs in families, we have here simply a case of evolution of the people towards unmediality. It was a continuous rooting out of mediums which has gone so far that some European people are now almost entirely unmediumistic. But in some English, and especially old American families, mediality is still to be found.

It is a sign of good mediums, especially for the so-called physical phases of mediumism, that if they are women, they are strongly masculine, and if they are men they are strongly feminine in their natures. Their sexuality is not far from the point of equilibrium, as represented by the true hermaphrodite. Nirvanaism furnishes the explanation why persons of such natures are easier affected and used by the ghosts than persons of strongly polar natures.

The development of a medium consists of periodical extractions of medial substance by the ghosts which causes nature to produce more and more of it, as in the case of periodical bleeding increasing the amount of blood in a person. It is also required to practice the trancelike condition of mediums which avoids opposition to the extraction of medialum.

There is, of course, some fraud mixed with mediumism. In what line of "earning money" is there no fraud? But in mediumism there are phenomena which appear as fraud

and yet are none, at least as far as the mediums are concerned. I wrote about this matter in the year 1886 after extenstive examination of mediums who were said to be occasionally fraudulent:

"Exposures of mediums as frauds have repeatedly been reported in the daily press with the addition of the modern sensational pomp. Several good and reliable mediums were caught outside of their cabinets, apparently imitating materialized ghosts. Many spiritists are now acquainted with these strange facts. The worst enemies of the ghosts manifestations are not in this but in the other sphere of life. It is mainly the ambitious, selfish and haughty representatives of the religions who see, and rightly, a danger to religion and their personal power aud prominence in this movement. The teachings of the churches do not agree with the facts as found and reported in the seance rooms. Instead of supernatural spirits, we find here natural ghosts."

"The Jesuit ghosts especially spare no means to injure the movement; they watch every medium and every visitor, waiting for a chance to do something which may look like fraud. They feel when a sceptic makes up his mind to grasp the next ghost; in that movement they capture the cabinet, take possession of the entranced medium, change its dress and manage it in such a manner that the medium will walk out as if it were a ghost, and will then be caught and 'exposed.'"

"It may be safely said that every time a sceptic goes to a seance, intending "to expose the fraud," he will find something that in his judgment is fraud. When such people "grasp the spirits" in nine cases out of ten they will get hold of the poor medium who then awakes from the trance and finds herself in a disagreable position."

The close relation and resemblance between the medium and the manifestations also cause many suspicions of fraud. But the greatest fraudcryers are always those who know least about mediumism. I wrote further: "For all these reasons, an investigator should trust nothing but his own senses and reason otherwise he will never come to a final conclusion."

Mediumism contain three classes: *Materialisation, spiritualisation and animation.* These three terms are spiritualistic, but I am compelled to use them for the present. The first two classes include the so-called "physical phenomena," meaning them to be essentially different from the "psychical phenomena" of the third class. As the literature on these processes shows, it requires a theoretical standpoint to describe them. I give in the next articles anticipatory explanations in order to immediately connect the new theory of nature with these matters.

In all the various conditions of existing things, as we know them. we see two opposite tendencies, the one from the hard and cold to warmer and the other from the soft and warm to the colder conditions. As it will be shown later on that "matter" symbolizes *coldstuff* and "spirit" *heat stuff,* the existence of both of which I deny, in order to use common words, the first tendency may be called the "spiritual" and the second the "material." Every increase of the coldness and hardness or of the material force of a body, including its passive resistance and relative weight, is, therefore a *"materialisation"* and every increase of its heat, softness and relative lightness is a "spiritualisation. But we limit these two terms to the customary use of applying them only to the mediumistic processes.

Somewhere in the row of possible conditions of the worldstuff, including all existing things, must also be the condition of the ghosts. According to nivanaism it is in the middle of all conditions, at dynamic equilibrium or apolarity. In order now to enter polarity and higher activity the ghosts must borrow half-ripe substance from a living person who is inclined and developed to let it be taken and used by the ghosts. This extraction of medialum is limited with persons of strongly polar natures who are inaffectible by the apolar ghosts, but can be developed highly with persons who are near-hermaphrodites, whose natures are in this respect nearer to that of the equilibrated ghosts.

Good mediums are often conscious of it, that they have "the feeling of the north," which means that on account of not being strongly polar in themselves, they can feel the

influence of the polarisation of the earths magnetism. A way to find mediumistic persons, therefore, is to find persons who are susceptible of the earths polarisation or who have "the feeling of the north"; another way is to find *near hermaphrodites.*

V. MATERIALISATION.

It was very difficult for the ghosts and mediums to force the acceptance of the grandest part of mediumism, *the materialisation of ghosts.* Theoretical and religious prejudices were strongly against it. The spiritualists came from the churches and brought with them the mentalistic, (psychistic, spiritualistic) theory of "spirits" which in no way harmonizes with the fact of materialisation.

How could a "supernatural, immaterial, purely mental spirit" ever become matter? It is inconsistent and inconceivable. And it is a historical fact, that the representatives of the mentalistic theory, religious and otherwise, have always opposed materialisation and other "physical" processes of the ghosts. They would be right if their theory was right.

Materialisation of ghosts is now a scientifically established fact for all those who want to know it. And I wish to add, that there is much less fraud in this branch of mediumism than generally talked about, even among the spiritualists. The materializing mediums are much better than their reputation. Many reported frauds were no frauds but tricks of hostile clerical ghosts whose opposition to spiritism the living do not take into account.

The living are rather naive in regard to the ghosts, believing them to be "higher beings." That there are many ghosts who are opposed to "spiritism" because "it hurts religion," that they do everything in their power to prevent enlightenment of the living on this important subject, that, therefore, they do things which appear as frauds of the mediums, is not understood even by many experienced investigators and mediums. The misleading tricks of such enemies were behind many of the so-called exposures.

The word "materialisation" in the sense as it is used here, must not be understood as meaning that the ghosts in their normal condition are ether, spiritus or another invention of speculation and in the said process become "matter," also invented by speculation, because this change is against "the law of preservation" of the supposed entities. Materialisation means the process of increasing the passive force, coldness, hardness, passive resistance, etc., of the ghosts through substances borrowed from the mediums and drawn into the pores of their ghostbodies were once their harder bodies that were left behind, have been, until they have become resistant enough to be perceivable by our senses, from the almost transparent floating forms to the heavy forms which can stand a good clap on the shoulder.

The ghosts are material—spiritual at equilibrium, and when they "materialize" they do not change their entity but simply increase the material side of their substance by means of medialum. To use another illustration, they are apolar (plus minus) and in order to enter polarity, they borrow polar substances from the mediums and with them materialize or become partly antipolar and living.

Experience has shown that for all the branches of materialisation, women are by far the best mediums and that of the materializing ghosts, more than 80 percent are ghosts of women. If we consider together with this fact the other that the word "matter" (Old-English—matere) has been derived from the Latin word *mater* for mother, and that instead of materialisation we could say motherialisation, though I do not propose it, then it may appear quite natural that the female sex should be the most suitable for this process. The few materializing mediums who were men were close to being true hermophrodites. Besides that male mediums for materialisation have female assistants in the role of leading the seances.

It has often been tried to hold materializing seances in full light. It resulted in nothing but troubling the mediums. At seances with gaslight, the much reduced results started in the shadow of a table, in a dark corner or under the garments of the medium. The pair of slates between which

ghosts are writing, also forms a dark cabinet for the materialisation of finger tips.

Since light and heat are the breath or spirit of the sun-god, they act "spiritualizing" and oppose materialisation. Winter and cool rooms make this process easier while damp, warm air retards it. During the hot months the mediums either close their shops or go to camp meetings in cool places. The ghost-hour is the darkest of the night because the natural conditions for materialisations are most favorable at this hour in regard to darkness and coolness.

Materialisation being partly a cooling process, materialized ghosts feel the colder, the harder they are materialized, and they sometimes say: "we feel like taking a cold bath."

The apparitions of ghosts seen by so-called clairvoyants only also are slight materializations, for which reason these sensitives can see or hear but one or two ghosts at the time. Photographing the ghosts also belongs to this class, because it requires a certain degree of materialisation of the ghosts in the presence of a medium, generally not strong enough to be seen but strong enough to affect the sensitive plate.

Often the ghosts materialize themselves but partly, only their hands, feet, vocal organs, etc. The greatest difficulty they have with their hair for which reason they have generally covered their heads with white garments. The beards of materialized men are often but partly materialized and often missing entirely, which makes identification difficult.

The white color having the greatest resistance against the heating influence of light, the ghosts generally are wrapped up in white materialized garments of vegetable ghost substances when materializing, in order to protect themselves against the spiritualizing influence of the little light at the seance.

The phenomena of "doubles" also belong to materializations. The substance used by the ghosts, the medialum, is taken from a medium; ; partly it is not organized but loose and without definite form as some facts show, but mostly it has the organisation and form of the person it is taken from, to wit the medium. The ghost forces this semi-ghostly body into his own organism trying to make it temporarily a part of himself.

The resulting form when cooled to a perceptable state is a compromise between the medium and the ghost. Often the ghost looks much like himself, but often the likeness with the medium, especially when the conditions are poor, is such that the materialized personality may well be taken for either the medium or a double of it.

Mediums have been investigated with such doubles standing at their sides. The materialisation may also be a double of another sitter who is not the official medium and is conscious. The reported doubles have great similarity with such materialisations. The person who sees a double may be the medium itself in which case it perceives a slight trance, or the observer may be a third person at some distance. It does not require the wild hypothesis of "exteriorisations of the souls of the living" to explain the doubles.

VI. SPIRITUALISATION.

The second class of mediumism is the spiritualisations of things which belong to our sphere of conditions to invisible conditions which are to some extent nirvanal.

Coins, knives, flowers, etc., get "dematerialized" or rather spiritualized in seances and are returned after a short while. Neither materialized objects of the ghosts nor spiritualized objects of ours can be held very long in the changed conditions, hardly ten minutes.

Spiritualization forms the counterpart to materialization, the two being in everyway of opposite directions in changing conditions of things, but we must not take either of these terms in its absolute sense. Spirit does not become matter, nor does matter become spirit; neither of them exists.

The spiritualisation of a coin is a mediumistic process of increasing the heat, especially the specific or latent heat of the coin until it enters a latent state which is unknown to us in ordinary experience. It does not melt, for otherwise it could not be returned as a coin. My investigations of this surprising process have lead to the following explanation: We generally count but three latent states, or, as

the materialists say "aggregate states of matter," the solid, the liquid and the gaseous. But within these three principal states there are others.

Ozone and ordinary oxygen are both gaseous, but they are two distinct latent states of oxygen, of which five are known, each of which is a chemical substance entering processes with its own proportion of forces. Sulphur, arsenic and mercury have two gaseous states. Carbon has in all 17 known latent states of which graphite, diamond and coal are solid. These many latent states of a substance cause the "multiple proportions" in its chemical actions.

Organic life produces fat and other substances which are neither solid, nor liquid, nor gaseous. The new theory, later to be proven, involves that the state of the ghosts substance is the resultant product of the equalisations of all the other states and is, therefore, neither solid, nor liquid, nor gaseous, but somewhere in the middle between them, solid enough to maintain form and organisation and yet, say, fluidical enough to pass through porous organic substances,such as wood and cloth, but not through glass.

The ghosts work the coins latent state into one similiar to their own. The details of the process are not yet quite plain, but it is evident from observed facts that it is merely a change of that condition which I explain later on as latenture (see vocabulary). It is neither a melting nor a chemical process, but that it is a heating process in some form is shown by the fact, first mentioned by Zoellner, that when the coin comes back it is warm, often so hot that it cannot be touched, and that things of combustible substances often get a little burned in this process. It has been demonstrated that the ghosts can actually make fire in this way. Meanwhile the temperature of the medium cools considerably. But besides the temperature there is nothing changed in the objects of these experiments.

Men are much better spiritualizing mediums than women. Spiritualisation is paterialisation as the counterpart of materialisation.

Spiritualisation succeeds best with poor conductors of heat. The ghosts inwrap the object with some insulating medial substance which serves like a cover on a pot with

water, enabling the heating of the water above its ordinary boiling point. The ghosts also run a cooling stream of air over the object, a breeze often felt by the sitters, and where they have the opportunity, they sprinkle water on it which appears as dew when the object arrives in the hands of the sitters. All this is done to prevent combustion.

The heat the ghosts work into the object by means of spiritualizing medialum takes the form of latent heat and the object enters a state which in this respect is similar to that of the ghosts own substances and which in advance of later explanations, I shall call zeronic, referring to a certain zero of dynamic preponderance.

In this invisible condition the spiritualized object is for a short while at the disposition of the ghosts who can transport it, pass it through wood and many other substances and do a lot of astonishing things with it. This class of mediumism, called spiritualisation, includes all cases of interpenetrations of objects, or so called "passages of matter through matter," such as interlocking two separately turned wooden rings. Of course, where there is one substance there cannot be another, but water can pass through wood.

A good medium cannot be tied well enough to prevent the ghosts from loosing the ropes and throwing them out of the cabinet in an instant. The levitation of mediums, such as reported of some saints who were mediums, also depends on partial spiritualisation.

But the most interesting feature of this class of processes are the apporting seances where the ghosts bring flowers and other objects and drop them apparently from the ceiling. The objects are spiritualized in some dark place outside the seanceroom, are carried there and then rematerialized. As soon as the reverse process sets in, the objects begin to move, either thrown or falling, and while they move, their rematerialisation is completed. The observers never see the starting of the motion of these objects, which is a sign of genuine mediumistic apportation.

That apported organic objects need no high heat for their spiritualisation is shown by the fact that when they return to visible conditions, they are not as hot as returned mineral objects. Yet the ghosts cover them with dew to save

them from burning. Also the well attested fact that among the apported objects were living small animals, indicates that when once in the possession of suitable medialum and conditions the process of spiritualisation is not so very difficult as it must appear to us.

The mediumistic apports have a hostile character when clerical ghosts are apporting paraphernalias into a mediums cabinet for an expected expose, to hurt spiritism. There is fraud in this matter, but it is on the part of those reactionary ghosts and not on the part of the mediums, through they have to suffer for it. The boards of cabinets of men who insisted on being materializers, while by nature they were spiritualizers, have been spiritualized by ghostly enemies in such a manner that the observers at the fronts could look through to the rooms behind. It was, of course, concluded there was an opening for helpers to enter the cabinet. Iron wire cages for such mediums were very hot where the visible materialized ghosts passed through.

But the ghosts cannot pass spiritualized objects nor themselves through glass plates without first changing in a spiritualizing manner the condition of the glass which is apparently very difficult. The ghosts can, therefore, be locked up with glass plates. This fact, which knocks the spritualistic (mentalistic) theory to pieces, is well established experimentally though the mediums and spiritualists were bitterly opposed to it. But they could not refute the "spirit testimony," so much valued by them.

Combinations of materialisations and spiritualisations enable the ghosts to do perplexing tricks. Among the magicians on the stages are mediums who mix with mediumistic tricks others, because it does not pay to appear as honest mediums. The "great magicians" on the stages, who earn much money while the honest mediums struggle with poverty, are unable to explain some of their principal tricks, such as some "cabinet spectaculars," levitations, etc., on any other basis but mediumship, but hide themselves behind evasive phrases and the claim that they must not tell their "business secrets." Of course, they have their ghosts to aid them. Ghosts can be had for any deviltry.

It was a "professional conjurer" who showed the "Sey-

bert Commission on Spiritualism" of the University of Pennsylvania that he could do the same tricks as the mediums but as he did not explain his tricks to this so-called "scientific commission" which then concluded that mediums must be frauds because a conjurer could do the same. Seyberts money was wasted.

VII. ANIMATION.

The third class of mediumism requires again that we borrow some terms from the spiritualistic theory. Of the names for this class, such as inspiration, psychic manifestation, etc., I select *animation* as being least indicative of super-naturalism. Obsession would be better, but it is too old; nervous inverberation would be still better, but it is too new.

Every attempt to separate psychology from physiology leads to supernaturalism. "Animation" is, therefore, used here as signifying a physical process, as physical as any other process in the world. Nirvanaism knows of no psychical process which is not physical, or more especially physiological. Supernatural, unphysical processes are imposible because the concept of physis or nature includes the entire world process, also that part which takes place in nerves and brains.

When after some practice a sensitive medium submits its organism to the influence of the ghosts, they control the motive nerves of the indifferent medium in such a way as to animate the organs to actions directed by them. Mediumistic talking, writing, playing, singing, drawing, imitating, etc., are done in this way. "Subconscious phenomena" of many kinds result from such animations effected by ghosts on sensitive persons, but very seldom without submission to this influence.

If practiced mediums are unconscious in deep trance, statements may come through, which are above the medium's mental spheres and languages may be spoken or written of which they know nothing; but as a general rule the communications through mediums move within the psychic realms of these persons and are generally shaped by their

language and mixed with their own views and beliefs. The similarity with the medium is as marked in the animatory, as in the materializing class of mediumism. We are never directly face to face with the ghosts in a perceptible manner but least in the class of animations. It is also the class in which confusions, deceptions, fraud and, worst of all, advises, are most abundant and where proofs of genuineness are rarest. Still we have to count with it.

Symbols for names or concepts which are strange to the mediums, often take the place of words. When a medium "sees" a distant scene or "hears" a distant voice, it does not mean that "its spirit is there," or that it can perceive at a greater distance than other people. but that it is impressed by an obsessing or influencing ghost whose brains interpenetrate the mediums and transmit the sensations. Often objects like locks, knives, hands etc. help the medium and ghost to find the way to these transmitted impressions.

In the first period of "modern spiritism" this psychic mediumship was thought the most important because the people expected from it "revelations of the spirit world." But the result was a great disappointment notwithstanding the immense amount of questions and answers that have been published. The only true revelation we got from them is, that the ghosts cannot reveal the condition of themselves and their world to us but that we must find out ourselves.

As a whole, psychic mediumism has done much more harm than good, because the living people do not understand that they are communicating with the dead who cannot judge of their own condition and much less of the conditions and circumstances of the living, who naively believe that "those higher beings" must be able to advise them. The random advice they received has led many people into misery.

Nowhere is the physical character of mental processes so apparent as in this class of intercourse with the ghosts. Experiments have shown that our thoughts etc. cause magnetic inductions and fluctuations in the surrounding air and also induce magnetically the ghosts in this magnetic field or atmosphere in such a manner that they have the same thoughts at the same time with the living originator, but

do not feel induced but rather as if these thoughts were their own. Magnetic induction does not tell its origin. The "band of spirits" who surround a living man, "think together the same thoughts," and as they see the man writing or hear him speaking these thoughts, they conclude that they have "inspired him" with them and claim credit as his "inspirators and guides." Really, the dead take all the living for mere mediums of theirs and often claim it.

The ghost of a cowboy needs to study no philosophy to inspire a philosopher, all he needs do is to stand alongside of the writing philosopher and then the inspiration goes on. When the two meet as ghosts, the philosopher is perplexed at the cowboys claims as his inspirator, especially as he finds, that he now can also "inspire" mortals, though not with his own "system."

Experience shows that a living man who knows those things, can attract, hold, move and repulse ghosts by his mere willing. He can force them into a glazed cabinet and lock them up, injure and destroy them.

A sceptic can spoil a seance in which he is present by his sceptical attitude, and his feelings or thoughts to the effect that the thing cannot be done, which magnetically induces the present ghosts with a similar feeling and lames them in their work. The retarding influence of scepticism in seances is a fact well known among the spiritists and is very annoying when efforts are made to convince a sceptic. But if all the sitters are convinced and hopeful, it exercises an enabling influence on the so easily affected ghosts.

While the ghosts feel as if the induced thoughts from the living are their own, on the other hand, the psychic mediums feel as if the really "inspired" sentences, which they write or speak under the influence of the ghosts are their own; they mix them with their own, even when trying to be careful. Successful mediums of this class are often puzzled whether the writings their hands do, are their own or not, because the ghosts influence on the motive nerves of the arm and hand runs to the brains as well as to the muscles moving the pencil.

The mediums' own opinions and testimony regarding the genuineness of their mediumistic phenomena are of but

little value to the careful investigator. If a medium says, "I did it all myself," it is not at all certain she or he did without the ghosts. Clerical ghosts have often made mediums denounce themselves as frauds when in the same moment they were speaking mediumistically. It must never be forgotten that a medium is a medium and not an investigator.

One of the most hurtful forms of animation is called *"obsession,"* generally signifying cases where neither the medium nor its friends and least its doctor knows the cause. Such a person is simply "crazy." Often the obsessed claims to be another person that himself. An ignorant ghost who is the obsessor believes to have come back into our life sphere, reembodied, reincarnated. If the obsessed is not lucky enough to meet a person who knows of these matters, he or she is lost, because the "alienists" know but one remedy, namely to lock the medium up for lifetime, an effect sometimes wanted by ghosts with hostile intents. To save the obsessed and other unconscious mediums would alone be enough object of nirvanaism if there were no others.

Luckily the evolution of the human race has been in the direction of hardening the living against all influences from the ghosts. But there are moments in everybody's life, when he or she is exposed and susceptible to the ghost's influence. These are mainly the moments of "falling asleep," or at the trancelike state which forms the transition from being awake to sleep. In this trance which fortunately lasts but a moment, the ghosts can influence the nerves of the living and give them "nervous jerks" which call them back to full consciousness, which often is done with hostile intention. These awakening jerks are common experiences for which the "doctors" have no explanation.

The animations have to all appearances been the cause of the belief that the ghosts are abstracted intelligences or mentalities without bodies, because in this class of manifestations they appear only psychically. But the mentalistic or psychistic theory has proven to be barren. Its representatives, among them several "psychic researchers" and professors of psychology, have failed to create a science of ghosts beyond the mere collection of tests and proofs of their

existence. Not one fact, relating to the "spiritual world" has been explained by them. Most of them do not get through collecting facts for what is called "the spiritistic hypothesis" which means the acceptance of the facts being caused by "spirits."

But if it is accepted that there are spirits, then the spiritualists without further investigations know all about them because they learned it from the supernaturalists in the churches. They know just what and how the spirits are and what they can do and blame the mediums if the stubborn facts do not agree with their extravagant notions. And how those spiritualists smiled at the man who locked up ghosts with glass plates!

The failure of a scientific treatment of this matter was caused mainly through the mistaken belief that the investigation of the ghosts is a matter of psychology, especially that metaphysical psychology of supernaturalism which has always been an obstacle to science. The ghosts being physical bodies, it is a matter of natural philosophy in its all including sence, to investigate their substance, condition and mode of existence. Chemistry, physics, biology, physiology, including scientific psychology, the natural sciences, emancipated from mistaken hypotheses, are the ways to reach the ghosts and to learn all about them.

The animatory phases of mediumism show but little of the ghosts being and are often easily gotten around as proofs of the existence of ghosts, for instance by the hypotheses of "telepathy, psychometry, exteriorisations, sub-conscious cerebrations" etc., none of which is true when meaning something in opposition to mediumism.

But such are the prejudices against the idea of the existence and manifestations of ghosts, that men who pose as scientists will rather advance or accept the wildest kind of nonsense for an explanation of the established and undeniable mediumistic facts than admit that ghosts have caused them.

"Telepathy," stretched and fabulous, means a "sensitive psychic" is feeling the thoughts or even "subliminal" impressions of other persons who may be miles away, and then expresses them. "Psychometry" means that the "psychic"

by touching things, such as knives, coins, letters, etc. can feel their history and matters that have been connected with them, or the persons that owned them. "Exteriorisations" mean that the soul of the reporting person exteriorates or leaves the body for a while, travels to places at any distance, finds out something which it could not possibly know otherwise, comes back into the body and reports the result of its expedition. "Subconsciousness" means something six leading American and French psychologists, who are simply baffled by the facts have been trying to define in a Symposium on "Subconscious Phenomena" but without success. Of course, the ghosts were not taken into account.

Such are the adventurous propositions and hazardous hypotheses some "scientists" prefer to "spiritism" which explains the established facts in a very much simpler manner as the animations from ghosts.

VIII. THE WORLDSTUFF.

As long as the people believed that the so-called spirits were supernatural beings, consisting of pure minds, intelligences, or of thoughts and ideas or consciousness or some other abstraction of the same class, the "spiritualists" or mentalists could afford to let the materialists have the worldstuff, who stamped it as "matter" in accordance with their hypothesis of its essence.

But since others who have not come from the ranks of religious spiritualists have entered modern empirical "spiritism" and have concluded that the ghosts are no such abstractions but real, substantial, physical bodies, organized as persons, and since it is known in philosophy that nothing can exist unless it is space-filling or stuffy, we need the worldstuff for our new philosophy, including the new theory of ghosts. We need it entirely and not merely a part of it by splitting the world in two, a "material" and a "spiritual." There is but one kind of worldstuff, filling space completely and substantiating all existing things in this and any "other world."

The first sentence of modern nirvanaism is now this: *The ghosts consist of stuff which is not essentially different*

from any other stuff. It means that if we know the essence of the stuff the sand, the water, the air, etc., consist of, we also know that of the ghoststuff and there is nothing left to be investigated but conditions, organizations and circumstances. We must, therefore, study the worldstuff first in order to arrive at a naturalistic theory of the ghosts, because this theory cannot be something exclusive of "mundane science" but must be a part of natural philosophy, the keystone of it all.

Modern nirvanaism is based on the discovery of the essence of the worldstuff. It is required to first explain the Anglo-Saxon term "stuff" which must take the place of the term "matter."

The word *stuff* has been derived from the Latin word *stupa* which means to fill a hole or a space, to cram an opening, to stuff. This concept of space-filling stuff has then been expanded to an infinite worldstuff which leaves no empty space. The stuff is the extended, every form stuffing substratum which forms the basis of all existence and reality and without which nothing can be, because empty space is nothing.

Space is our abstraction of the extension of stuff, which means that if we mentally abstract from the stuff its extension then we gain the idea of space which exists nowhere but in abstract thinking as a mental concept of fundamental importance.

The basis of all being is stuff, and since the ghosts are beings, they are stuff. But when the concept of space was gained, the matter was reversed and stuff explained in relation to space. Stuff, then, is the space-filling being which every philosopher can afford to admit.

Another question is now that about the essence of the worldstuff. Here begin the ontological theories which have postulated the stuff as matter (coldstuff), ether (heatstuff), astral substance (lightstuff), spiritus (breath of the sun-god, ether, etc.), psyche (the Greek for spiritus), phlogiston (firestuff), fluids (electrical, magnetical, etc.), od (a German invention), and other stuffs.

We can reduce these hypothetical stuffs to an absolute passive stuff which is called *matter,* and an absolute active

stuff which in physics is called *ether* and in spiritualism of the original kind is called *spiritus*.

Only a monistic materialist is justified in calling all stuff "matter," but such materialists hardly exist. The materialists could never get along with their "matter" alone and, therefore, added to it first empty space, then ether and then an uncertain energy stuff, which made them dualists. Neither are to be found monistic spiritualists or etherial ists. Long ago the spiritualists added to their spiritus matter. Only the modern energeticists make an attempt at monism, but do not succeed.

We must become acquainted with the various stuff theories because they are at the bottom of the various philosophies and form the basis of the various oppositions to "spiritism." In order to establish modern nirvanaism as the true theory of ghosts, it is required to oppose all the old philosophies and revolutionize philosophy by establishing a new fundamental principle for the erection of a new philosophy which includes nirvanaism as its necessary consequence.

It is true, supernaturalism is no opponent to the belief in the existence of a certain kind of spirits, but it is opposed to the notion of natural *ghosts* and to mediumism which demonstrates their existence. But supernaturalism is no philosophy, but a belief, and we do it an honor if we call its notion of mental spirits a theory, the mentalistic, commonly called the spiritualistic theory.

The supernatural part in the dualism of "matter and mind" or "nature and spirit" being mind, in order to exist in space which is the only place for anything to exist, it must be space filling or stuffy. I remember hearing from spiritualistic platforms of "thoughts being real things," "intelligences, minds, etc., having existence of their own," and "ideas floating in space." If we boil them down, we get space-filling thoughtstuff, ideastuff, mindstuff, etc.

These philosophical monstrosities were caused by the confusion of the abstract with the being, as well as of the time-filling with the space-filling. Time is our abstraction of the progress of action, as space is our abstraction of the extension of stuff. Now thoughts are actions, are therefore,

time-filling, and not space-filling, are consequently no stuff, no beings in space.

Supernaturalistic spiritualism or mentalism is consistent only when it denies the ghosts space-filling existence and postulates them as "immaterial, bodiless, purely mental beings," unphysical, supernatural, outside of space, above the world, and some other impossibilities. We cannot think unstuffy beings, nobody could and nobody ever understood the supernatural. The doctrine consists mainly of inconsistent, superlative phraseology which is not to be understood but to be believed.

The times are gone when philosophers worth mentioning believed they could construct the functioning out of function or the actor out of action, as Fichte still tried it. All philosophical attempts that concern themselves with the world as it is, try to construct it outof some kind of stuff, be it now matter, or ether, or both, or some other stuff.

The ghosts also consist of general worldstuff. The study of this stuff is, therefore, introductory to the new theory of ghosts.

IX. THE ESSENCE OF STUFF.

If the ghosts as well as any other existing things consist of stuff, a knowledge of the being of ghosts is not possible without first knowing the stuff that substantiates them, its essence as well as its condition.

The essence of the worldstuff is that which this stuff by necessity of its own existence is everywhere, at all times and in all conditions and circumstances. No matter at what spot in the infinite world or at what time we test the stuff, it must always show up in a certain way which demonstrates the essence of it, always the same, constant and commensurate in time and space.

The first requirements of the absolute world essence are its constancies in time and space, or its independence of time and space. Eternity and omnipresence are older terms for it, which have become vague in their misuse, besides indicating an unwanted relation. For the absolute there is no time and space, but we need these concepts for explanations.

The constancy in time has generally been accepted and claimed for any hypothetical entity that was ever invented. But the constancy in space was not always considered important. All the various entities postulated in olden times were filling space but partly; to fill it completely, two entities were required, such as matter and ether. But humanity has felt early that firstly but one entity should exist and that secondly it should be omnipresent.

The essence of the world is called "absolute" because it has no relations nor conditions, it is absolutely independent, unaffectible and indistructible. It simply is the being of all beings, it is pure being. It is also independent of mathematical laws which we may invent, but since we have to fix it in some form for our own understanding, we do it by a law which we gain inductively from experiments with stuff.

For the proof of this law it is not required to make new experiments because experimental science has long since furnished all required facts, only that the monistic and dualistic philosophers were not prepared to see the meaning of those facts and, therefore, made no use of them, the more, because they did not fit into their systems.

Since all mathematical figures and demonstrations are banished into the Appendix for reasons given in the Introduction, I shall endeavor to give here a simple statement of the world law in a way which I hope will be understood also by readers who imagine that they are "no mathematicians."

The worldstuff has two opposite forces, a passive and an active force, neither of which is ever missing. The passive force prevents nihilation of a certain existing body, it appears as passive resistance against pressure, cold against freezing the body out of space, hardness against knocking it out. This force has been called "materiality" but this word has an absolute sense. I have modified it to *materity* with a relative sense as we shall see later.

The active force of stuff is the force which expands a body and makes stuff fill space, which, therefore, is always in direct proportion to the varying volume of a body. It appears as softness, because it affords no resistance to pres-

sure, but mainly does it appear as heat in its different forms, namely as heat in temperature which we call *temperal heat,* as"specific heat" in the chemical conditions, better called *chemical heat,* as *latent heat* in the latent states, the solid, liquid, an airiform, and as *electrial heat,* wrongly called "negative electricity." Symbolically it has been called *spirituality.* I shall develop the general name of *paterity* for it.

We have them now both, "the materiality and the spirituality" of the world, but we reject them as properties or substances or absolutes of any kind and show the forces that have been signified by these old terms as the correlative factors of the essence of stuff in which sense they are called *materity and paterity.* The question is now as to the position they hold to each other and to the absolute. (A-2.)

The world law, demonstrated in the Appendix, means that the two world forces, *materity* and *paterity,* when multiplied with each other, always and every where produce a certain constant product. This *constant force-product* has been termed *galom,* a new word for a new concept. It is a very simple matter when once understood, though so much has been said about the "unknowableness" of the worlds essence by philosophers who did not know it.

In chemistry, the constant force product, our galom was called "atomic heat," because the materialists who had control of scientific affairs at the time when it was discovered, explained it vaguely as the product of "atomic weight and specific heat," but could never make it agree with their philosophy. Dulong and Petit discovered it first with solid elements, therefore, it is called "the law of Dulong and Petit." Afterwards it was established for all chemical substances, but monism and dualism prevented its recognition as the world essence.

I express it in this way: *In all the chemical conditions of the worldstuff, chemical cold and chemical heat form a constant product called galom.*

Every chemical substance, therefore, represents a certain latent or bound proportion between the opposite forces, materity and paterity, in this case called chemical cold and heat. And that the product of these two counter forces is

constant, means that the forces are to each other *inversely proportional.* Inverse proportionality has now become a very important law. It means that when one factor of a product, say materity, is multiplied by two, the other factor, paterity, is at the same time divided by two. If we take for the constant product 64 then the two factors could be 8x8, 4x16, 2x32, 1x64, or any others between the infinite small and large which by their multiplication produce the constant 64.

Ohm's law in the science of electrics means that the electrical factors are also inversely proportional, referring especially to active (negative) electricity (electrical heat) and electrical resistance (positive electricity, electrical cold). Clark's scale of electrical resistance is graded "geometrically" instead of arithmetically, in other words the graduation is in accordance with the above law. If the active and passive forces in electricity, which have wrongly been termed "negative and positive," are inversely proportional, then their product is constant. (A-4.)

Moriotte's or Boyle's law in physics, modified and elaborated in the Appendix, means that stuff under pressure or mechanical action behaves in such a manner that its passive resistance is always directly proportional to the pressure and inversely proportional to the volume or extension which is directly proportional to its heat. Consequently under mechanical action the cold and heat of a body remain inversely proportional and their product constant.

To these three old empirical laws, which have been tested and accepted by science, I have now added the laws that in all possible temperatures and in all latent or "aggregate" states of stuff, the product of the counterforces, cold and heat or materity and paterity, is also constant. (A-3.)

I have reduced all these specific laws to one general law by showing that it is always the same constant, our *galom,* which appears inductively in all these various conditions and actions. In this way I have established the world law, that in all conditions of the worldstuff, uniformly through space and time, the multiplication-product of the counterforces is constant.

Since this constant force-product, which through its constancy in time and space becomes the essence of the world-stuff is called *galom* the conception of the world based on this knowledge of galom is called *galomalism.* It would have been accepted long ago if there was not combined with it nirvanaism. But it was the ghosts that ca used the elaboration of this new philosophy, now galom and the ghosts have to be taken together, because nirvanaism is the keystone of galomalism.

The establishment of galom as the essence of the world-stuff is elaborated in the Appendix (A-2). I pay one thousand dollars for the disproof of galom, as explained in the Invitation. The innermost essence of the world is known; it is galom, the force-product, constant in space and time.

X. MATERITY AND PATERITY.

It is a historical fact that humanity has instinctively identified the passive force of stuff with feminality and its active force with masculinity, but I shall mention some empirical proofs for it that humanity was right in this identification and that, therefore, it is justifiable to unite all forms of the passive forces under the name of *materity* and all active forces under *paterity,* simply for the sake of generalisation and simplification.

Some species of organic beings may appear as if the idea, that of the two sexes the female represents the hard and cold and the male the soft and warm department of the inequilibrating world, is contradicted by the outer appearance of the sexes, especially the human, where the poets in contradiction to the philosophers have pictured the females as "etherial beings." But there are fishes, insects and reptiles whose females are larger and stronger than the males, which shows that superior bodily strength is not a necessary attribute of masculinity.

We start our investigation with the yolk of a fertile egg. However, we move it, the male part is always on top because it is lighter than the female part, which means that it has the higher specific heat. Experiments with low bisexual organisms had the result, that in a temperature of 15 degrees R. their offsprings all became females and at 25 degrees R.

they all became males, while in the temperate temperature of about 20 degrees, there came equal numbers of males and females.

Birth statistics show, that in the cold season the girls and in the warm season the boys have the majority. Polar explorers found the female members of bisexual plants growing many miles further north than the male members. Every day we can notice that women dress more coolly than men, whom nature had to give beards where garments were not convenient.

The life of the male sex takes place at a higher degree of heat and activity than that of the female, for which reason the source of the forces, the food of the males, is of a higher specific heat than that of the females. Men consume much more liquids than women, who eat more of the harder foods, especially the hardest, namely sugar. Male butterflies will partake of alcoholic drinks until intoxicated, while the female butterflies will not touch it but look for something sweet. It is easy for the feminine sex to be "temperance-women."

Professor Schenk's discovery consisted mainly in this, that women who had an attack of diabitis or sugar disease would invariably get female children. He, therefore, reduced the sugar in a woman who wanted a male child. His practical success was not great but his principle was right.

In human life it shows often enough, which of the sexes is the harder. The woman's passive resistance against oppression and her ability to bear the hardships of life, or her patience with man and child are much stronger than the same forces of the man. On the other hand the man's superior active force need hardly be mentioned.

From the above facts, to which many similar ones could be added, it is concluded that feminality as a force is identical with the general passive force in nature, and masculinity with the active force; this now justifies for the first the summary name of *materity* (not materiality) and for the latter the summary name of *paterity*.

That these forces are "correlative and antipolar" means that they cannot exist singly, but only in their juxtaposition, that they exist only in relation to each other and have meaning only in their opposition, that, therefore, *there is*

no materity without paterity and no paterity without materity.

The first organisms were hermaphrodites (from Hermes and Aphrodite). Gradually the sexes separated in such a manner that the one half came to be on one side and the other on the other side of a certain point of equilibrity and indifference between them. This point of sexual equilibrium is represented by true hermaphrodites. It is the zero of sexual preponderance from which sexuality is graded to both sides. Some men are more masculine than others and some women more feminine than others, but absolute men or women cannot be; it is merely a matter of inequilibrity of hermaphroditism or of the preponderance of the one or the other force or tendency in them. The degenerated nipples on the men's breasts show a certain degree of feminality in them, and more such signs could be pointed out on both sides. They all, males and females, are inequilibrated hermaphrodites.

Hermaphroditism is essential in the organic world as well as in the inorganic, because the world's entity itself, the galomal worldstuff, is a hermaphrodite, a motherfather. Hermaphroditism is the principle of the world.

Since the factors of hermaphroditism, the counterforces, materity and paterity, are in general equally strong and important in nature, they counterbalance in organic life in such a manner that in normal conditions the sexes are represented by about equal numbers.

The question of generation and creation has been the question of philosophy as long as it concerned itself with the real world and did not get lost in the void abstractions of supernaturalism. There came a time when humanity began to ask: Where did we and all the things around us come from? The first answer was: *From mother!*

Of all available concepts in regard to making or creating, "mother" was the first, then came "father," then "mother and father" and now *mother-father.* Generalisations of these creators have caused the philosophies of materialism, paterialism (spiritualism), dualism and now galomalism.

The older of these philosophies personified their creating

entities as a world mother, such as Isis, or as a world father, such as Jehova, or as a pair of world parents, often with children, and through these personifications they became religions, materialistic, spiritualistic and dualistic religions.

Galomalism is no new religion, because it makes no person out of its world-mother-father. Galom, being absolute, has no properties, can, therefore, be no person or even a thing; it simply *is*. Galomal stuff is inorganic except where it has entered organic life.

XI. MATERIALISM.

The most respectable opponents of "spiritism" are the "materialists" because they are the most intelligent, consistent and honest.

When mentioning materialism, I do not mean that popular vague "materialism" which is mainly a denial of supernaturalism and religion and otherwise is satisfied to merely assert that all things are stuffy and mind an attribute of brains.

I mean philosophical materialism which was of all the old philosophies the grandest attempt to explain the world from its very essence to the last phenomenon. Like every other philosophy, materialism starts with a certain conception or hypothesis of the essence of the worldstuff, erects on it a system of ontology and metaphysics and ends with "the mechanical theory of nature."

Monistic materialism should simply say: *The world-stuff is matter.* But for reasons we shall soon see, materialism inconsistently yet unavoidably has extended its fundamental hypothesis to this: *The world consists of matter, empty space and motion.*

Formerly it was believed that the atomic hypothesis was invented by Leukippos and Demokritos, but it is now known sufficiently, that Demokritos heard of it on his travels in Asia, probably in India, and brought it home to Greece, where it was further developed by him and others.

Materialism dates from way back in prehistoric times. It has to all appearance been the first philosophy of human-

ity, because it is the philosophy of the mother-right, of matriarchism, the first form of the family.

It is not required to state here the reasons why modern research, such as made by Bachofen, Morgan, Engels and others, has led to the conclusion that in prehistoric times, nearly up to the beginning of written history, there was with the white races, as is still with some negroes, a system of sexualistic and economic affairs, in which the mothers were the heads of the tribes, clans, gentes, etc., and when all descendancy and inheritance was counted only in the maternal line.

In the tribal communism of matriarchal times, the men were mere *fraters* or supporters and protectors of the clans, also brothers and lovers of the females, as in the old-Egyptian love songs, but they received no recognition as fathers.

The cause of this relation between the sexes called "the motherright" was the ignorance of the real requirements for the creation of new beings. It was not yet discovered and known that generation is the cause of creation. The idea and concept of *father* did not yet exist, the word was later derived from *frater*. The Australian negroes do not know as yet that sexual intercourse is the cause of pregnancy, and the missionaries try in vain to make them believe in the idea of a universal father, these negroes not having that of an individual father.

In the year 1894, I mentioned my discovery first, and since then, in several articles, that the discovery of paternity is of but recent date. It was made some 7000 years ago through breeding birds, such as chickens, for which reason the female generative substance is still called the egg and the male the germ, while in reality, their combination is the germ. In 1910 the German "Zeitschrift fuer Ethnologie" published an article by F. von Reitzenstein in which he also comes to the conclusion that prehistoric humanity did not know the connection between generation and pregnancy.

In matriarchal times of the Arians and Semites the notion of "father" could not be taken into account in a theory of individual or universal creation. Mother alone, who became pregnant and gave birth to children purely from

her self-sufficient being, was the sole creator, as is also shown in the word: The Latin word *mater* and all the Germanic words for this notion, such as moder, mother, etc., have been derived from the Aryan word *motar*. *Mo* means to make, to create and *tar* is the old ending for personification. *Motar means maker.*

The maker of new beings was mother, and, therefore, was she the head of her family. Since men get their ideas from their experiences, and since in experience only mothers part in creation was known, the notion of mother was expanded and generalized to a universal mother, a world-mother, who made all things out of herself without there being a universal father.

As the human mother created children without anybody thinking about a father, so this great world-mother always was pregnant and always brought forth new things, alone, without "conception," immaculate or other. The word *nature* (Latin natura) which we use to signify the world process, originally meant *birth*. It became the symbol for the manner in which the world-mother created all things. Giordano Bruno still wrote: "Matter is the ever pregnant mother who gives birth to all things."

Of course, this world-mother, whose body was the earth, was once personified and represented by works of art. Since personification of generalities is the principal feature of religion, which is mainly a theory of creation, the materialists cannot object to the curious conclusion that old materialism with a personified female creator and ruler of the world was the first religion of humanity. But since the Greeks found the materialistic creator, already atomized, the old Indian wise men must have dropped her personification before that time, yet there were such remnants of it as Isis, Maria, Hera, Juno and others.

While now the great world-mother of early humanity through the critique of some sharp philosophers lost all her organs and became atomized, unorganized, motherly substance, which in Latin was called *materia* (motherstuff) and, therefrom derived, in English first *matere* and now *matter*, she did not lose her essential passive character. On

the contrary, her passivity was increased to an absolute extreme, it became the absolute essence of the world.

Matter, per hypothesis, is absolutely passive and inert. The passive force, hardness, coldness, resistance, inertia, is its essence. Matter is stuffified passive force; it is passive force stuff, hardstuff, coldstuff. The materialistic hypothesis which forms the basis of the entire system of materialism, includes the idea that a force is a being existing in space, filling space, and that, therefore, it is stuffy.

In the previous article we saw that feminality as a force is analogous to the passive force in general; but feminality was perceived by the materialists as the creating element, the source of all existence, which was without relation or partner, irrelative, absolute. Matter is *absolute* which means that it is hard and cold, not in comparison with something soft, nor with a tendency to the infinitely hard and cold, but it is it to perfection, without a possibility to increase or decrease its perfect passivity. This point is very important. Spencer who did not understand it, proclaimed: "The essence of matter is unknowable." If the worldstuff were matter, its essence would be very plain, it would be absolute passive force.

The active forces in the world, such as heat in its many forms, are, according to materialism but "properties of matter," which are not essential and, therefore, destructible; they are accidental and could be missing, for instance at the absolute zero of heat, of which I have something to say in the Appendix.

XII. MATERIALISTIC INCONSISTENCIES.

The constancy of matter in time, its eternal existence, was taken as a selfunderstood matter; consequently, matter per hypothesis is unoriginated and indistructible. It means that there has always been and will always be a certain amount of matter in the world which can neither be increased nor diminished. Materialism has never been inconsistent in this respect.

But the constancy of matter in space, its "omnipresence," which is also a requirement for the absolute so

as to be independent of space, has caused the materialists a great deal of trouble and led them already in prehistoric times into several inconsistencies. Suppose space were filled completely, and, therefore, uniformly with matter or passive resistance, then motion, nature, life would be impossible. For this reason, the materialists filled space but partly and unevenly with matter and left the greater part empty. In that way they originated the philosophical monstrosity of "empty space" as a being part of the world.

Space is abstract, it is our mental abstraction of the extension of mass. A certain mass of stuff is extended by its heat in all directions which is a requirement of being. If we abstract the extension from the stuff and treat it as a separate concept, then we have space. Taken by itself, space is a mere nothing. It is but a mental notion. The being of space has been argued with the sentence: "The nothing is something." It only shows of what sophistical use language is capable.

The materialists were forced to the inconsistency of making empty space an entity and adding it to their matter to make up the being world. Monism, the much proclaimed principle of materialism, was thereby set aside; the world became dual, consisting of matter and empty space.

But these two were not yet sufficient to construct a living world, motion was missing, because without it, the world was quiet and dead. Where should motion come from without supposing that it was caused by some outside being, some "first pusher"? In the essence of matter there was nothing that could cause or start motion; neither had it any requirement nor purpose for it.

Materialism was compelled to commit another inconsistency by making motion, this abstraction compounded of time and space, a third entity, which was neither originated nor ceasing. The quintessence of this trinistic materialism is now: *The world consists of matter, empty space and motion.*

That the materialists afterwards, when the logical impossibility of empty space was demonstrated, filled the space between their atoms with ether, does not belong here, because that ether they stole from the genuine spiritualists whose

heatstuff or spiritus it was under another name. Also the compositon of "matter and energy" is dualism and not true materialism.

It is extremely difficult to construct a system of monistic materialism (or of any monism) because it is so unnatural to suppose the existence of a single force, such as a pure passive force, for the essence of being. One force alone cannot form an action, because in an action there are two opposing forces taking the position of counter-forces. For reality and actuality both the active and passive forces are required. In the ninth article and appendix thereto it is proven that it is not a force nor two forces, but the product of the two counter-forces which is the essence of the space-filling being. But materialism does not know this product and pays no attention to the empirical laws of nature which indicate it and which contradict materialism. It takes but one factor of the stuffessence, the passive, into account and makes that the essence itself.

Materialism is a onesided philosophy. It is wrong from its first supposition to its last conclusion, which does not mean that the "materialists" are always wrong, they are right as far as they are scientific; but materialism is no science.

Another inconsistency of materialism is this "Matter attracts matter." It does not agree with the absolute passivity of matter. Experience shows that assertive attraction exists only in antipolarity. But in regard to the hypothesis of "universal attraction" I have more to say in a following article.

Materialism had to cut up its matter into very small particles to find room for motion and explanation for a number of properties of things. These particles were made extremely small, so small that they could not be divided any more; they became indivisible, atomous, and were, therefore, called atoms. Atomism became an indispensible part of materialism and the basis for "the mechanical theory of nature."

We have here again an absolutum in an extreme, it is *absolute smallness.* Logic demands infinity in smallness as well as in largeness, which are relative conceptions and can

never be absolute. Absolutum is no more an extreme than infinitum. The absolute smallness of the atoms being impossible, it is certain that this invention of materialism is an untruth, that there are no atoms.

The atom is a materialistic phantom, the empty space is a materialistic superstition, the causeless motion is a materialistic magic and the fabulous ether is a materalistic theft.

The materialists have tried to save their speculation by changing that phantom called atom into an "extensionless force centre." But, first, this leads to dynamism, and, second, an extensionless being is no being because the filling of space, stuffiness is the first requirement of existence. Every existence has three dimensions, which are infinitely divisible.

The eminent materialist, Buechner, was right in a way when he said: "Though we cannot in thought place ourselves at the last point where matter is no longer divisible, there still must be such a point, because to suppose infinite divisibility is absurd, it leads us to the nothing and casts doubt on the existence of matter at all."

This courageous consistency is praiseworthy, but his case was a hopeless one. It is not true that the infinitely small is nothing; it is a positive though indefinite something, and is small only in comparison, in itself it is neither small nor large. But Buechner was right in this: Without atoms there is no matter. Since space completely filled with matter cannot be, materialism cannot do without atomism, it stands and falls with the absolutely small, hard, indivisible, unchangeable atoms, and no sophistry is able to help it over this nonentity.

On account of this untrue hypothesis of "material atoms" we are expected not to trust our senses when we see ghosts! But the phantoms nobody can see, not even in his dreams, are the materialist's phantastic postulates, such as the material atoms moving causelessly in empty space, and cut up lately into ions, electrons and other pieces of the indivisibles.

In order to understand the true position of materialism in philosophy, let us keep in mind that of the two factors of *galom* the constant force- product which is now proven to be the essence of stuff, it takes but the passive factor, and makes

this alone the essence of stuff, therefore, calling it matter. We shall now see how the other factor was taken for that essence.

XIII. SPIRITUALISM.

A great confusion is prevailing as to the meanings of terms like spiritualism, psychism, idealism, mentalism, etc. Spiritualism, not "spiritism," was a naturalistic attempt to explain the world. It forms the exact counterpart to materialism. Both originated through onesided views of the experiences in sexualism.

We have seen that matriarchism or the family-system of the motherright caused materialism as its philosophy of the world. For the same reason did the following patriarchism cause paterialism, which received the symbolical name of spiritualism.

The Latin word *pater* and all the Germanic words of the same meaning, such as vater, father, etc., have been derived from the Aryan word frater, which in the time of matriarchism was the name for a male member of a clan. These fraters (brothers, protectors, supporters) had love affairs with their "sisters," including all the female members of another clan of a tribe, but their cooperation in the creation of children was not yet discovered.

But when from experiences in breeding animals, especially birds, the conclusion was reached, that without the addition of the male element the female creates nothing, a discovery was made of greater consequences than any other discovery ever made. From the fraters of a clan the fathers separated and created families of their own. The institution of marriage and the private family was started including the economic system of private property. Tribal love changed to marriage love and fraternal love became fatherly love.

The men had no means of determining their paternity except by limiting the intercourse of the women to those who had become their masters and husbands. This caused the greatest struggle and revolution the human race has ever had within itself, the struggle between the sexes which is not ended yet. The men, being the stronger, made the women

their slaves and put them under guard, so that a man who owned a wife was pretty sure that her children were his.

Philosophy was now changed by the men to suit the new conditions, and to impress on the woman that the new morals, made by the men, were of divine origin, and according to superhuman law, and that it was sin to overstep the limits of these new morals.

Father became the only creator of children and mother was degraded to a mere tool and part of him, "his rib," merely a mean of creation, good enough to foster the "seed," and the children, but otherwise of no essential importance. To cheat the mother entirely of her rights, the father also lay in bed at the birth of a child, as if he were the birth-giver, a custom preserved to the present day with some wild tribes.

The former matriarchism had made the passive force the absolute world entity and called it *materia,* the new patriachism discharged it, made the active male force the existing, creating and ruling entity and should have called it *pateria,* but gave it the symbolical name of *spiritus.* Instinctively the analogy of the masculine force with heat was known. Apparently this creative force came from the sun. In the generalization of the notion of *father* the sun now became the universal father, the only creator of heaven and earth.

As the human father, the patriarch, was the ruler of his family, so was the heavenly father also appointed as the ruler of his creation and was, therefore, called *god* (from goda, ruler). He received the dignity, reverence and worship of a creating and ruling universal patriarch or worldfather, who was placed on the divine throne from which the old worldmother had been pulled down. From that time on religion has been generalized patriarchism.

Godfather in heaven, the sungod, sent his creating element down to mother earth by breathing and blowing it, so that his face was beaming of his breath. It was only this beaming face of god that was seen of him, while the other parts of this big man were invisible. Wherever the breath of god struck the earth warm enough, life appeared and things were born. God also generated and created the first man by inserting of his breath into a red earthen clod, to

which modern science cannot object, only that it is too simple.

The Latin word for breath is *spiritus,* the Greek word *psyche.* Since breath was not only the sign of life but also the nearest symbol for radiation, the life creating light and heat that came from the sun were called "the spiritus of god." All spiritualistic religions have originated from sun-worship. The "blessing of god" was his impregnation of the soil and females of organic life, or his fructification of mother earth.

When afterwards through errors in transmission and tradition this doctrine of the creating spiritus of god became disconnected from the sun, because that spirit was also seen in lightnings and fires, and perceived in temperatures, spirit was generalized, made an entity by itself and became a stuff, heatstuff, ether, of which matter became merely a lower condition. Spirit, the breath of god, became itself the god. "God is spiritus." But as the old world-mother became *worldmatter* through the loss of her personification, so became the spiritual god through dispersonification the worldspirit, including all existing worldstuff which at that time was not infinite.

The philosophy of such a spiritual world is the original and only genuine philosophy of spiritualism. That the word *spiritualism* is now mostly used as identical in meaning with *mentalism* was caused by a very hurtful confusion of philosophy at the time of the Greeks, which we shall consider later. Genuine spiritualism means that the breath of the sungod, the spiritus of god, god the spirit, and finally simply *spirit* as symbol for the old heat-stuff was the fundamental stuff of the world.

Materialism says the worldstuff is coldstuff; spiritualism says it is heatstuff. These propositions are very simple when you boil them down to their first meanings; but they are both wrong because the worldstuff's essence is the constant product of cold and heat.

XIV. SPIRITUALISTIC INCONSISTENCIES.

Monistic spiritualism denies the existence of matter. Spiritus, accordingly, is the only absolute entity of the world,

and the paternal substance which creates all things out of nothing but itself (not "out of nothing" as wrongfully transmitted). Matter is spirit's lower state or condition, which it requires for creation, as a man required a "rib" of himself for the creation of children.

This is in itself an inconsistency because the absolute must not have conditions. If matter is a lower condition of spirit, or, which means the same, cold a lower condition of heat, it preserves monism to some extent, but absolutism is gone. A changeable and conditional "entity" is not absolute, but depending on something that causes it to change.

Jupiter was the best spiritual god we know of. He was by himself and not related to any female, nor did he have a family until he became indentified with Zeus. It is not plain though how he managed the creation of the world when he was still a bachelor.

The religion of spiritualism had taken the place of the religion of materialism. Both had social effects, especially in regard to the relation of the sexes to each other. But notwithstanding the degradation and oppression spiritualism brought to them the women became its most enthusiastic and sacrificing adherents, because their nature desired the "spiritual," being the masculine, for equalization and happiness, while the male's nature, being inclined oppositely favored materialism.

Genuine spiritualism in historical times became overgrown with the supernaturalistic weeds of idealism or mentalism, but still we are not through with it; it is still among us as *etherialism.* Spiritus, being heatstuff, was given the name of ether (lightstuff) when that bastard, mindstuff, was put in the place of spirit and received its name. Under the name of *ether,* the original spirit was then adopted by the materialists to fill the space between their atoms as an uncared for orphan.

Etherialism, the remnant of true spiritualism, is no longer alone and monistic but was compelled to enter a poor partnership with materialism, resulting in a division of space which henceforth was partly filled with matter and partly with ether, leaving no empty space; but this, of course, is dualism.

The ether per hypothesis is a stuff which consists of pure softness and heat. When consistently described, it has not the slightest resistance nor passive force because this force is "material." The essence of ether is pure heat.

Now, according to the spiritualistic or etherialistic notion, the ghosts are spirits, consisting of pure heatstuff, spiritus or ether. This, though, is not what is meant by the "spiritualistic theory" of today, which is mentalistic. Such etheral ghostbody of course has no resistance, and there is no wonder that we cannot perceive it because the resistless is insensible. It is, therefore, hard to tell how those who accept the existence of ether can oppose the idea that the organic lifeprocess means the separation of ether from matter, and that the products of it, the ghosts are etheral beings. In fact, to say that the ghosts are spirits should mean that they are etheral, which is a different standpoint from saying that they are minds. But the "spiritualists" of today are not what they call themselves; they are mentalists, at least in regard to the ghosts, believing them to be mental beings, if such are possible.

Galomalism, of course, is opposed to etherialism or true spiritualism for the same reason as to materialism. Heat is not an entity and stuff, but a force, being the factor opposite to cold in their constant product, galom, the stuffessence. Heatstuff, ether or spiritus exists no more than coldstuff or matter.

The most conspicuous apearance of the godly worldspirit was fire which is a process in which a gas changes the greater part of its latent heat into free or temperal heat which then effects us. Fire was made sacred (uncommon) and worshipped, as it is still in parsism, a branch of spiritualism. Phlogiston or firestuff which was still believed in a century ago, is but another form of spirit or heatstuff.

The wandering heat, effecting the equalizations of the conditions of the worldstuff, is the active force in nature. For this reason, the old spiritualism perceived the world process, or nature, as a restless eternal activity without cause or object, or as Heraklitos termed it, an "eternal becoming." The "eternal circulation of forces" is still to be found in philosophy.

Spiritualism knows of no dynamic equilibrium, rest and nirvana; restlessness is an eternal attribute of its spirit. When the materialists made heat the motion of their atoms, so much of the character of spirit remained, that eternal restlessness was now transmitted to matter.

The worldprocess, nature, according to true spiritualism, is an eternal burning, an everlasting conflagration, never consuming the fuel and never producing a result or product of combustion, like fire on a small scale does. The materialists were compelled to make something out of "motion" and the spiritualists had to make something out of "process." Fire, a process, became being, and out of the burning bush spoke the firegod to Moses.

Let us keep in mind, that the abstraction of *process*, meaning a continuous action, the progression of which we call time, had begun to be a being in space. It was at the end of the spiritualistic period of philosophy when this transformation of timefilling process to a space-filling entity was made. It was the transition from spiritualism to mentalism.

It is not required to start a great opposition to genuine spiritualism because it is a dead lion in whose mane there parades a supernatural bastard who wants our investigation.

Etherialism as applied to the ghosts may often be met with in materializing seances, where it is so evident that the ghosts when not materialized are still there, in space, consisting of some kind of stuff, but it is hardly a philosophy except as a part of a dualism.

The philosophers of modern physics have invented ethers which are more or less material and, therefore not in conformity with the philosophical ether per hypothesis.

XV. MENTALISM.

For reasons soon to be seen, I prefer to call metaphysical idealism, which is often confused with social and artistical idalism, *mentalism.*

That part of the abilities and functions of our nerves which reaches the condition of consciousness by perceiving the self in relation to the other things, is often called our "spirit." According to this terminology, spirit is the combin-

ation of will, feeling, reason, intelligence, etc. But we must object to this misuse of the term "spirit," which was the result of a great confusion of philosophy. The better name for our mental capacities is *mentality*. Its most prominent part is reason.

Of the personification of the spiritual entity, the old heatstuff, as a worldfather, nothing had remained but his organs for seeing, hearing, creating and minding. In this reduced condition he could hardly be imagined any more as a person. Since the universal patriarch was much more feared as a ruler than loved as a father, his *reason* came prominently to the front and expanded to immense proportions.

The great spiritualist, Heraklitos, still taught the spiritualistic idea that all things originated from fire or heatstuff, but added that the universal fire had a divine reason which regulated the world. The peculiar doctrine of firestuff with a ruling reason, the latter a remnant of personification, marked the transition from spiritualism to mentalism.

The "divine reason" of the world's spirit grew bigger and bigger until it finally absorbed the entire spirit and put itself in its place, a process in place of a force. But it is a sign of the confusion of the philosophers of that period, that they maintained for their new universal entity, the worldmind, the name as well as the sex of the old world spirit. The universal mind which now became a god, is also a man though there exists no reason why mind should be perceived as being masculine. Spirit became mind and mind was called spirit.

It is impossible to imagine mind as a person; the personifications of the worldmind were, therefore, mere caricatures of the heavenly father of spiritualism, of Osiris, Zeus, Jehova, Jupiter and the other national sungods.

The fundamental idea of mentalism is this: The being of the world (the worldstuff) is *universal mind,* the processes in the world (nature) are the *thoughts* and the existing things in the world are the *ideas* of this all embracing mind.

To call mentalism idealism is proper only in regard to its doctrine of existence: The things are ideas. In regard

to nature, or in this case, the process of creating the stuffy ideas, mentalism is teaching that it is the thoughts of the universal mind who do it. Idealism, therefore, is but a part of mentalism and does not cover it fully.

According to the doctrine of monistic mentalism, the storm, the chemical processes, the electrical actions, the entire generation and creation in the world are the thoughts, and the sand, the water, the mud in the streets and the poison in the stomachs are the ideas of the universal mind.

It is true that this doctrine was seldom forwarded in this monistic form, because it early became an adjunct to materialism which needed a supernatural engineer for its worldmachine, but there have been attempts at monistic mentalism in the form of monotheism.

The people have never been able to imagine such a universal mind or even to understand the doctrine; they have only tried hard to believe in it. In fact, monistic mentalism never extended beyond the mystical phraseology of some clerical rulers who covered their own inability to understand and perceive such a mind as was postulated by the doctrine by a lot of unscientific bombasticism.

The people are right to believe in their experiences which tell them there is no action without an actor, no function without a functioner, no capacity without a body, no mind without a brain. Therefore, there is either a personal and bodily god or there is none, and the concept of "person" includes that god must have eyes to see with, brains to think with, and all the other organs that make up a person.

The people still worship the heavenly, somewhat distorted, godfather of spiritualism, and have no understanding for the unnatural monstrosity of mentalism, but through its introduction and confusion with spiritualism, the people have become so confused that today they do no know the difference between spiritualism and mentalism.

The principal mistake of mentalism, which makes this whole doctrine a mistake, is its substitution of the abstract and ideal for the being and real. It mistook capacities and processes of our mental nerves for real things. It confounded the time-filling and the space-filling. It made stuff out of process.

But the mentalistic notion of *abstract beings* is not isolated. The philosophers often or even generally made the mistake of making beings, or stuffs out of abstractions, the materialists made space and motion beings, and the dynamists and energeticists made forces and energies beings, existing in space.

It must be emphasized that a truly monistic mentalism is not supernaturalistic as no monism can be. It embraces the entire of the supposed mental world without there being a below and an above. The monistic feature though could not develop because mentalism inherited from spiritualism the idea of a higher world ruler which required the supposition of a lower ruled world. Only when mentalism was combined with materialism which needed an engineer for its world-machine, did the universal mind become a supermundane being, acting as a supernatural operator of the natural world; but this is a sort of dualism.

We are facing a dark confusion: Spirit was first a symbol for sunshine (breath of the sungod), then for heatstuff, and ether, and then it was misused to signify mind. In this last sense spirit was wrongly translated with ghost. According to this unscientific terminology, the ghosts became minds, called spirits. The so-called spiritualistic theory of "spirits" is mentalistic but in the sense of supernaturalistic mentalism, as a part of the dualism of "matter and mind." It does not pay to clear up this confusion, especially when we reject the entire doctrine of mentalism (including idealism, psychism, spiritualism, supernaturalism, etc.) anyway, the dualistic as well as the monistic.

The application of supernaturalistic mentalism on the ghosts, or the theory of "spirits" has caused the present rejecting attitude of the scientists toward "spiritism." It is true that mental beings, "spirits," are impossible—but still there are ghosts!

Psychology is not much of a science as yet, but so much is gained to determine the physiological character of minding and mind. It is not required to be a materialist to acknowlelge that psychology is a science only so far as it is a branch of physiology. Mind and mentality are capacities and functions of brains of either living persons or ghosts; they, there-

fore, have no being of their own nor action by themselves, outside and independent of brains.

When applied to "spiritism," psychology has some use in the investigation of some features of mediumism, though but little has been gained through it. But the belief that the investigation of the ghosts is a matter of psychology is an old and bad mistake which has withheld a science of the ghosts so long.

The ghosts have minds as they have all other organic properties of the species they belong to, but they are no *minds*. The ghosts are stuffy, physical bodies, occupying space.

The principal objection of science to "spiritualism," namely to its untrue doctrine of "mental beings," is entirely avoided by nirvanaism or the new theory of ghosts which shows the ghosts as natural beings and not as spirits or minds.

XVI. DUALISM.

Monism is the doctrine of the oneness or unity, and dualism of the twoness or duality of the world. Both are number principles which put such meanings to the one (monas) and the two (dyas) as go far beyond their mere mathematical character, which indeed place them into the essense of things and give them metaphysical importance.

The principle of galomalism excludes monism, dualism and all other number principles.

One and two have no more metaphysical worth than the lucky seven or the holy ten or the congenial twelve or the dangerous thirteen. The number-mysticism of the philosophers and the number-superstition of the people belong together as members of the great family of confusions of the abstract with the real. Monism and dualism came from this mystical region.

Monism means that the world is a unit, not only in regard to its size and quantity, for which reason it is called a universe, but also in regard to its quality and essence. The unitary entity of the world is supposed to be either matter or spirit or mind, and accordingly we have the monisms of materialism, spiritualism and mentalism.

Dualism means that the world consists of two entities, either matter and spirit which are the entities of naturalistic dualism, or matter and mind, which combine to the dual world of semi-supernaturalistic dualism, because in this dualism, mind becomes supernatural.

To understand the origin of dualism in philosophy, we have to return to the philosophy of sexualism which was the beginning of all philosophy.

It appears that with some of the old nations, patriarchism was never carried so far as to deny mothers essential importance in creation entirely. Mother became "the lower" of the creators and with her matter lower than spirit, but she was more than a mere soil and mould, she was essentially required and necessary. Also socially mother was saved from becoming a mere slave to the father, though she was placed low in estimation.

Consequently, mother and father both were recognized as the co-operating creators which caused the philosophy of a pair of world-parents, "matter and spirit," which the Egyptians personified as Isis, representing the cool earth, and Osiris representing the hot sun. Through their interaction they made all living things.

When their favored children, the human, got in trouble, the divine couple created a superhuman son and sent him among the crying people to deliver them of their evils. Such sons of the godly couples were Horus, Christus, Herakles, Hercules and other national saviors.

The attempt of making one god out of two or even three, father, mother and son (father, son and holy ghost), leading to the curious doctrine of the three-oneness of god, shows what the unfit number-principle may lead to. But mythology which is above mathematics may be excused when we see scientists trying to establish a twooneness of matter and energy.

In philosophy outside of religion, dualism seemed to offer a better possibility to explain the world than monism, which remained onesided. The materialists could not maintain matter as the only entity, because it required empty space between the atoms and space was recognized as abstract and unbeing. They took the ether of the true spiritualists and

filled with it their interatomic space. These two entities, matter and ether, could not have any other relation to each other than dividing space between them, therefore neither is absolute in space, each being limited by the other.

Through this adoption of spirit or ether by the materialists, they became dualists. They had to make this inconsistent step to fill space and at the same time not interfere with the motion of their atoms which ether, having no passive force, did not do. But the "materialists" do not claim to be dualists; they never liked the ether and adopted it only to help them over a predicament after logic had destroyed their empty space. That ether is the dismal sign of the failure of materialism for which reason the materialists pay no attention to it when they measure a portion of the world by weight instead of by volume. For ether they would not give a cent.

Dualism, which makes a stuff out of each force, excludes all correlation between the two entities. Not relatively or in comparison with matter is ether soft, but it is it absolutely without a possible increase or decrease. And so is matter without relation to ether, being hard of its own perfection. That some people have written about a small degree of passive resistance in the ether, others about "etherial atoms," others about "compressions and rarifactions of ether," for the transmission of light and electricity, belongs all to the inconsistencies of which the woods of philosophy are full nowadays.

In the middle of the nineteenth century, "the law of the preservation of energy" was established. It seemed a new element was introduced in philosophy. It caused the dualism of "matter and energy," the materialists being glad to drop ether. But there was no new entity. The principal one of the "energies" into which all the others are transformed when they have done their work, is heat, and since energy as an entity has to fill space and be stuffy, this new entity is nothing but the old heatstuff, spiritus, ether. All dualistic attempts within nature lead to the same old couple, "matter and spirit," cold-stuff and heat-stuff.

The other dualism, the semi-supernaturalistic, which is a combination of materialism and mentalism, means that

there exists a material world, which is a kind of a machine, the running of which is nature, but that this world-machine is no perpetuum mobile but is controlled by a supermundane mind which as a sort of engineer builds and runs the world for some unknown purpose. This mind then is supernatural. Supernaturalism exists only in this dualism.

The materialists had a material world which was supposed to be a perpetuum mobile. But the people very rightly did not believe in a machine of that kind, because that was against their experience. Any machine must have an engineer who runs it. A machine is designed and built for a purpose and must be supplied with power and attended to and regulated by somebody. The notion of a machine implies design, erection, rule, supply and purpose. There is sense in teleology, if the world is a machine.

The mentalists had an engineer, but no machine for him and the materialists had a machine, but no engineer for it. It was sensible that the two were put together. But through this combination, mentalism became supernaturalism, because the universal mind now was no longer in the world-stuff and nature but above them; it became supermundane, and supernatural.

Supernaturalism can never be monistic because it is possible only as a part of either dualism or trinism. Of course it is self-contradictory if nature includes all actions in the world, but being the result of speculative fiction and not of experience and science, this notion has a strong hold on religion.

The materialists seem to be opposed to supernaturalism, but are unable to do away with it. On the contrary, materialism has always called out supernaturalism, because the mechanical theory of nature is inconceivable without it.

Not much can be said about the supernatural mind; science does not know it, nobody knows it. It is entirely a matter of postulation and belief, which will vanish at the same time with materialism and mechanistic theories, but no sooner. But what interests us here is that the ghosts as minds were also placed outside of nature into the supernatural overworld, thereby becoming "supernatural beings,"

the existence and possibility of which is rightly and definitely denied by modern science.

The term "spiritualism" was and is still used or misused to signify this supernatural mentalism as part of the dualism of "matter and mind." It is this false spiritualism, unscientific and untrue in every respect, which has become the worst enemy of "spiritism" and mediumism, because it puts the ghosts as supernatural spirits who cannot manifest naturally. Its representatives among the living and especially among the ghosts do all they can to suppress the practical or empirical demonstration of the existence of natural ghosts, because "the spirit-world" has become the last stronghold of the supernaturalists, which cannot be captured by materialism. Galomalism does so capture it.

XVII. ENERGISM.

Modern energism or energetics as a philosophical system is younger than galomalism. Galom was discovered in 1883 and the work of erecting galomalism started in that year, while energism dates from 1887 when Helm proclaimed the fundamental dictum: "In order that something may happen, there must be present different intensities of energy."

Up to that time, Robert Mayer and his followers had a dualism of "matter and energy" which existed alongside each other as two entities. But Helm's sentence gave a reason for nature within some idea of energy and then "matter" was set aside and the world stuff made "a spatial composition of energy."

The monistic form would be: The world is energy. But great difficulties as regards an explanation of nature have kept back this dictum. A world of continuous energy would make motion and nature as impossible as a world of continuous matter. Therefore, empty space was required together with energy. Yet a unitary energy, merely differing in intensities or uneven distribution in space again raises all the difficulties that drove former monists, especially the materialists, into dualism when space was recognized as abstract because where there is uneven distribution of being, there is no being somewhere.

A unitary energy as the only entity also raises difficulties

in regard to action which requires the opposition of two factors, unless all action is explained as mechanical equalisation of densities of energy in which case again space is a factor of reality.

A dualistic energism with two opposite energies, though not new, would better agree with experience which manifests opposition of some kind. As a matter of fact, most reasoning of energeticists is dualistic even though not called so.

The energeticists gave new definitions to force and energy, but they are not very clear. Sometimes force is denied altogether and heat as well as attraction, is called energy; sometimes energy is confused with a natural process, such as light, or with mechanical action and "work." Anyway, the energeticists find it difficult to define their energy in a manner to become an all-embracing entity.

It is true that the terms force and energy which originally were of the same meaning, have become vague through misuse. A new philosophy must, therefore, define them for itself. But to call the two opposite tendencies in magnetism, repulsion and attraction, energies and the two opposite tendencies in temperature, cold and heat, also, leads to confusion.

Galomalism calls *forces* the two opposite factors of the essence of stuff which form that constant product called galom, and *energies* the two tendencies of magnetism. Cold and heat, materity and paterity are forces, but attraction and repulsion are energies.

But this nomenclature is not the main difficulty between us and the energeticists; that difficulty is the question of addition or multiplication of the opposites if the energeticists also have them.

"The convertibility of energies" has served as a reason for the doctrine of one essential world-energy which appears in many forms. But while the different forms of heat are convertible, heat cannot be converted into cold. This matter of convertibility, according to experience and logic, limits itself to this: The different forms of paterity, such as temperal, electrical, chemical and latental heat, are transformable and convertible into each other, being the same force essentially; the different forms of materity, such as cold in temperature, passive resistance, chemical cold, and

the cold or passive force bound in the latent states, are also convertible into each other, and that ends it.

If the energeticists will please look again, they will find that experimental science never did transform an active force into a passive force; the opposition in their characters prevents it, a matter which irresistibly leads to dualism if an "energy" is made an entity.

A vague but popular notion of convertibility includes the mistaken induction that mechanical action can be converted into heat. In that case, heat is not conceived as a force nor an energy but as "molecular action," purely mechanical. Mechanical momentum of the coarser kind then simply changes to atomic momentum, as materialism has it, which should not be acceptible to an energeticist. He should find another explanation of heat, namely as a pure energy and not as a motion and least as an action. In regard to the notion of conversion of action to heat I refer to the Appendix, to Article XIX. (A. 6).

Energism no more than dynamism can construct action without first accepting two opposite forces. The required opposition in action makes it necessary that the energeticists be dualists.

The question arises: Where are those entities called energies? In space, of course. But anything that fills space is stuff. The next step the energeticists are forced to do will be to make stuffs out of their energies. But this was done already in prehistoric times, because the philosophers so far had none but force-stuffs, matter being the passive and spirit the active forcestuff. How can the energeticists avoid being pushed back to the dualism of "matter and spirit"? Different names make no difference in philosophy.

Galomalism rejects all force-stuffs because they agree with neither the concept of force or "energy," nor that of stuff. A force exists but relatively as a means of stuff for maintaining uniform being, either through resistance or expansion. An "absolute world-force" or an "indistructible energy" as an entity is, therefore, impossible. A force is an essential factor of stuff but never a stuff. In fact, forces and energies as "things in themselves" do not exist.

The first principal decree of energism says: "The

quantity of energy is constant." This supposed constancy is but in time, not in space, though also required for the absolute. The inconstancy of energy in space is made the requirement for and cause of action, as shown by Helm's famous sentence, already quoted. The intensity of energy is varying in space which causes "equalisations of the factors of energetic intensities," and these actions constitute nature, the object of which is then to distribute energy evenly in space. At the end of nature, monistic energism arrives at an even mixture of energy and empty space, and dualistic energism at an even mixture of its two opposite energies, stuffified to matter and spirit.

Yet an entity consisting of heat, or a heatstuff, spiritus can never be quiet but remains in restless circulation or "eternal becoming." Since energism teaches, that all its energies (meaning active forces) become ordinary heat, it excludes energetic equilibrium, if monistic, unless space is considered the oposite energy, which requires a new definition of space. But dualistic energetics may be able to make such equilibrium agree with its basic principle since empirical logic leads to the idea of *"the entropy."*

Some energeticists have arrived at a conclusion which is valuable for the explanation of nirvana, especially as it is an induction, merely expressed in energeticists terms, but otherwise independent of energism. From observation, they have concluded that their active energies diminish with every action, that, therefore, continually energy submerges into "the entropy" where it is lost and worthless.

Some English physicists use the word "entropy" in just the opposite sense to that of the German use of it. I accept the German definition as being more in harmony with the etymology of the word.

The entropy or realm of the dead, hidden energies or forces has some superficial similarity with nirvana, because nothing can be inactive and dead unless it is in some kind of equilibrium for which, of course, opposition is required. Unfortunately the doctrine of entropy has not been advanced very far and is still too indefinite to show what quiets the forces in entropy.

Some energeticists foresee a final entropy of their entire

world of energy. It can only mean a uniform distribution of energy or energies in space affected by the equalisations of the intensities of energy which are now differing. After that, of course, nothing could happen anymore. But the idea of a dead energy is inconceivable because death is a condition of equilibrium. Entropy, therefore, can be conceived only as an energetic equilibrium of a dual world of energies.

The idea of energetic intensities creating uniformity in entropy contradicts the idea of "eternal circulation of energies" preached by true energists and spiritualists. If the world of energies comes to a standstill, it then consists no longer of active energies and is, of course, no "eternal becoming," no perpetuum-mobile.

The energeticists have become the leading philosophers of modern science. Those of them who accepted inorganic entropy of a mechanical character will probably accept organic nirvana of a dynamical character if they can be reached. Nirvana contains the much reduced "hidden dead forces," not in even distribution but in indifference, not in diffusion but in individualisation. Organic life is the process that leads to it.

XVIII. GALOMALISM.

Every philosophy or explanation of the world, as we have seen, is based on a certain notion of the essence of the world. So is galomalism, but it is the first philosophy which proves its basic principle scientifically, and surely the first which has a reward offered for a disproof of it. Since nirvanaism is no complete philosophy by itself but a branch of galomalism, the galomalistic principle must be understood in order to understand modern nirvanaism.

Experience as well as logic compels the notion of two opposite forces in nature, an active and a passive; without them, the notion of action cannot be constructed. With the exception of some unreasonable "philosophers," humanity does not deny the duality of forces. But it was not understood what relations the forces have to each other and to the absolute. The two monisms claimed that but one of the forces was the real thing and the other but a property or condition of it. We have seen what inconsistencies this has led to.

Dualism accepts both forces as beings and makes each an absolutum and a stuff, thereby gaining matter and spirit. Dualism has several advantages over monism because it needs no empty space and has some apparent interaction of two entities, at least a mechanical one. Accordingly all happenings in the world are but mechanical additions and substractions of those two entities, each of which is otherwise perfectly independent.

But this notion is at variance with experience, especially in chemistry where it is plain that a chemical process is not an addition and combination of two elements but something else. Dualism is at variance with all the empirical laws of nature, as is more fully shown in the Appendix. Multiplication instead of addition is required by facts and law.

Galomalism rejects all forcestuffs as impossible extremes. The forces do not exist separately as entities or stuffs, but they are the correlative factors whose constant product is the essence which by its extension effected through heat is the stuff which fills space completely, continually and commensurately.

This essence, galom, is the first ever proposed which answers all the requirements for the absolute. It is constant in space and time both, and yet allowing all the differences in the world because it is no power. It has no conditions and no properties, it simply is the to-be of the being world-stuff, which is no force-stuff, but simply the space-filling being. The abstract notion of force originates inductively when we notice the galomal factors, materity and paterity, in the conditions as tendencies and in their equalisations as causes of effects. The opposite forces may vary infinitely to form the different conditions of stuff, but their product, galom, never varies because it is the absolute essence of the world.

No words are able to illustrate such ideas as simply and nicely as a correct figure for which I refer to the Appendix, (A. 5). The figure illustrating the fundamental principle of galomalism is not only substituting multiplication and division for addition and substraction of the forces, but it also shows the philosophy of galomalism as the first

which is neither extremistic nor mechanistic. All monisms and dualisms are extremistic because their entities are extremes which exclude the logical necessity of infinity in the small and large and in the weak and strong. Galomalism has no such extremes but has the infinities.

Infinity, a simple concept, was said to be inconceivable because the people were trying to imagine it as a quantity. But the concept of quantity includes limitation and dimension. "Unlimited quantity" and "infinite universe" are self-contradicting phrases. Quantities and units are always limited and dimensional.

Kants categories of quantity within which "pure reason" was supposed to move and beyond which it could not get, were the one, the many and the all, or unity, plurality and totality. For instance, the atom is the one, the aggregation of atoms into a substance is the many and the finite sum of atoms in space is the all, the universe.

These categories are the limits of all mechanistic theories which caused the latest "ignorabimus." Beyond these limits is "the unknowable" of the world-mechanics, who are inconsistent enough to talk about an "infinite world," when they have but a world-all, a universe.

But the logical concept of infinity is independent of the mechanical quantities. Infinity is not a quantity because it is unlimited, dimensionless and unmeasurable by units and figures. The infinitely small or weak is neither a null nor a one nor any definite quantity, but according to our power of imagining, the small may go way below the smallest unit, may it be an atom or even electron, and the large may go beyond any "all" be it even the "universe."

To shorten this objection to the principal foundation of Kant's critique, I postulate in place of Kant's categories of quantity as limiting our possible knowledge of the world to the exclusion of the knowledge of the absolute, the relative categories of the small and the large. From a choosen normal we call that which is below it small and that which is above it large, which does not exclude the infinities. But it must be understood that this division is an arbitrary act and that our quantities do not concern the world as such which is neither small nor large and, therefore, not conceiv-

able as a quantity. After all infinity as a necessity, not as a quantity, is a very simple notion, easily understood.

The difference between dualism and galomalism may be shown by an example: Empirical science found that it cannot separate the two counterforces. This was stated in the sentense: "No matter without force or energy, (heat), and no force without matter." If we put for the passive force *M*, and for the active force *P*, as in the figures of the Appendix, then this empirical decree reads like this: No *M* without *P* and no *P* without *M*.

There are philosophers who disregard facts; experimenters in mediumism have met them. But those who try to acknowledge facts had to take position to the above empirical induction and they did it in accordance with their principles: The materialists said: "No matter without energy and no energy without matter—consequently energy is but a property of matter." The energeticists said.—"consequently matter is but a form of energy." The dualists said:—"consequently, they both are there, matter and energy or spiritus."

But if they were both there and, therefore, the world-stuff the combination of matter and spirit, it would only be plainly logical that a separation of them were possible and that each could be obtained in a pure form. Therefore, dualism is not in accordance with that accepted empirical decree, which is also contained in the empirical laws of nature.

Since now neither of *M* and *P* can be without the other, as also shown in our figures, galomalism follows, namely that neither of them has an independent existence, that there is neither matter nor spirit, that *M* and *P* are not combined, because otherwise separation would be possible, but that they are multiplied as the factors of that which really exists. Only their product, galom, is essence.

Some readers, not used to consider philosophies, may ask what all these considerations have to do with the ghosts? Absolutely nothing with supernatural spirits. A supernaturalist has but contempt for the study of nature. But the readers who believe the ghosts are natural beings have reasons to study the general principles of natural philosophy, which now includes nirvanalogy.

Nirvanaism being the keystone of galomalism, we must first build the flanks of the arch before we can set the keystone.

XIX. THE CONDITIONS OF STUFF.

Ontology, the first branch of philosophy, is the sciene of being ((Greek: on). It was, of course, no science as long as it started with a hypothesis. By proving that *galom*, the constant force product, is the essence of stuff, and, therefore, this galomal stuff the being of the world, the ontological question is answered scientifically in Article IX and the Appendix thereto.

The second branch of philosophy is called metaphysics. It consisted of unproven doctrines of that which is behind (meta) nature (physis). Metaphysics, when true, is the science of that which causes the world-process or which makes nature necessary. The efficient, causing and requiring part in the world is *the reality. Galomalistic metaphysics is the science of reality.*

The metaphysical question which we have to answer is this: Wherein consists reality? Stuff is the being. What is there about stuff that is real, efficient and acting and causes nature?

The religionists, believing in "nature and personified mind," made this supernatural mind the metaphysical, and since this nonentity was unknowable, with the religionists metaphysics became a matter of belief.

The materialists made their "motion of atoms" the metaphysical. The spiritualists made fire or the burning of their world-spirit the metaphysical. The energeticists made first the circulation of their energy and then the equalisation of the intensity-factors of that world-energy their metaphysical. The dualists made the "distribution and redistribution" of matter and ether, energy or spirit the metaphysical.

None of these vague metaphysics could admit anything but a mechanical nature, entirely unfit for many things that happen and especially for the production of ghosts.

Galomalistic metaphysics may be condensed into this sentence: *The differences in the conditions of the world-stuff are the cause of all happenings in the world, or of nature.*

The actions, processes and happenings in the world require that different, especially antipolar conditions of stuff desire of and meet for equalisations. The differences in this respect are called antipolarities. Without their juxtaposition nothing can happen. The existing antipolarity in the world is the metaphysical reality, the cause of nature.

There is no difference in the essence of stuff, uniformly and continually galom extends in time and space, therefore, galom itself is not the cause of nature and neither is it affected by it, being absolute. But the two factors of galom, materity and paterity, being inversely proportional, may vary and form different proportions within the absolute product, and these proportions form different conditions of stuff, here harder and colder and there softer and warmer than the average, according to which of the forces is overweighing the other, and these conditions cause nature, because the forces, being towardly opposite, require to do away with the differences and establish indifference.

If in a certain substance the counterforces are equally strong, we call its condition equilibrated, neutral, indifferent. This substance is at the zero of preponderance and, theoretically, we call it *zeron*. In the appended figures, the zeronic condition is represented at the point *O*. If the world were consisting purely of zeron, without deviations from the point of indifference, there could be no equalisation of conditions; the world would be uniform, processless, dead. But this is only one possible case which does not happen to be the true one.

The condition of the world is partly out of dynamic equilibrium.

It is not mechanical equilibrium which is meant, because dynamics, properly understood, is no part of mechanics. Whether the dynamic inequilibrity is limited to our world of fixstars and nebulaes, or whether away from it there are other such living worlds is a question which concerns us but little. But it is another question, why the world is to some extent out of equilibrium.

To suppose a supermundane disturber has become impossible, because the infinite allows of nothing outside or above it, leaving no room for it. A "first pusher" may have

stood outside of the "universe" of the old philosophies, but galomalism has no universe and, therefore, no standing place for an outside pusher, nor interparticle place for an inside mover. Space is taken up completely by our galomal stuff.

An initiating cause for the world's dynamic inequalibrity could not exist, because such cause itself would have to be founded in inequilibrating conditions which are the only causing ones, are, therefore, always contained within causality even when temporally stagnant. Suppose there was a time when there was no inequilibrity, there was then nothing which could have disturbed the infinite dead world, because nothing else would have had the possibility of existence. Nothing could have started causality by causing antipolarity because that which is at equilibrium or apolarity can not get out of it by itself.

It is, therefore, evident that a varying amount of antipolarity has existed in the world from eternity as the causeless cause of nature. This necessary conclusion does not inconvenience us, because the absolute essence of the world is not affected by it and allows of varying conditions.

The further we go back in time, the greater was that antipolarity. In many cases it may have been stagnant from eternity until circumstances favored equalisations. Nature then had a beginning. The sun being a large body of solid and liquid elements which never went through a process, because otherwise they would not burn as they do, happened to get into a nebula or very large body of polar gases, mainly hydrogen, and made it its atmosphere, began to burn and started the nature of the solar system. Before the sun acquired that atmosphere he may have existed from eternity as an elementary virgin body in argon or other zeronic surroundings as a dark star. (A 11).

Antipolarity had no beginning, but the natures of the various stars with nebular atmospheres had beginnings and will have ends.

We gain an idea of how great the differences of conditions or the antipolarities may be by comparing the heaviest and most matero-polar element, we know of, uranium, with hydrogen, the lightest and most patero-polar. In weight uranium is 240 times as heavy as hydrogen. If now hydro-

gen be heated and uranium cooled in temperature as much as possible, then their conditions are very far apart, so far that with equal amounts of cold or "matter," hydrogen can have 100,000 times as much heat as uranium. And still, equal volumes of these substances in any temperatures are equal masses of stuff because they are equal amounts of galom.

It is such antipolar conditions that require and cause nature or the process of their equalization in order to establish equality at dynamic equilibrium, the object of nature. Inasmuch as a certain mass of stuff has a condition which is internally bound or latent, it is a substance. Stuff and condition together form the concept of substance.

The substances have been reduced to a number of so-called elements. The materialists have made some futile attempts to explain "the interior constitution" of substance in accordance with their atomic hypothesis. The condition of a substance then was a certain aggregation of atoms, grouped in molecules and vibrating in a certain manner. But since atoms and molecules have been degraded to mere names for chemical proportions, we shall not waste time playing with the hooks and hinges of molecules.

It will be expected that galomalism as a new philosophy has also a new explanation of the interior constitution of substance. It is illustrated in the Appendix as the spantomic constitution. (A 6.) It consists of undulating motions of strengthenings and weakenings of the counterforces through the substance.

This matter is mentioned here only because so much fuss has been made in regard to atomic and molecular constitutions that there may be people who would not think much of this entire philosophy if it did not furnish a new so-called "constitution" in place of the molecular. For nirvanaism, my present aim, it is of but little importance.

In the inorganic part of the world, the conditions of stuff may be divided into four interwoven classes: temperature and electricity which are the loose conditions, and chemicature (chemical condition) and latenture (latent condition, "aggregate state")' which are the bound conditions. Beside

these there are the organic conditions which are complicated equata of the elementary condition. (A 7).

Since our metaphysics is the science of conditions and physics the science of their equalisations, the conditions of the world-stuff and what happens in them are of special interest also to those who want to know something about "the other world," which is no "other world" at all than ours, except in regard to conditions. (A 8).

XX. MAGNETISM AND GRAVITY.

Neither materialism, energism or spiritualism nor dualism has a consistent explanation of magnetism and none of gravity.

The two counterforces of stuff, materity and paterity, are equally important as factors of essence, but they are of towardly tendencies; they, therefore, strive to balance and neutralize each other. An active force can be satisfied only by a passive force of equal strength. If, therefore, in two conditions the one force is overweighing in the one and the other force in the other condition they try to equilibrate through equalisation of the conditions formed by them.

On an average the world is at equilibrium, but in some important details it is not. The necessity of establishing and maintaining dynamic equilibrium throughout is magnetism. It is the cardinal necessity in the world of which all other necessities are branches. In regard to conditions, magnetism is the form of their dynamic relations.

Magnetism has two opposite energies, attraction and repulsion, which are correlative factors like the counterforces which they represent. These energies are, therefore, under the same law as the forces, which means that they are inversely proportional.

Being towardly opposite in tendencies, it follows: *Materity attracts paterity and repulses materity; paterity attracts materity and repulses paterity.*

Both energies are always present and on the average of equal strength, just as well as the essential factors which exert them internally and externally. In a polar condition, the smaller energy is neutralized by an equal amount of the larger energy, and of the latter it is but the overweighing

part which exerts itself externally, or rather in touching conditions, either as attraction or repulsion of other forces. Indifference does not mean absence of magnetism but equality of its opposite energies.

If two substances are in the same realm of polarity, for instance both with preponderant specific heat, they repulse each other. All polar gases repulse each other and themselves which causes their diffusions, and all liquid and solid substances repulse each other and themselves which causes their solutions. But if two substances are antipolar, being on opposite sides of the zero-condition, then they attract each other. The zero-substance, zeron, is indifferent to all other conditions because it has no preponderant energy.

Magnets with preponderant heats of temperature or electricity and to some extent also chemical magnets induce the surrounding substances, and if these are air of cool temperature, the magnets gain atmospheres by attracting and strengthening the cold or materity of the air. In this way, the attraction is transmitted through induction of an atmosphere to other bodies, for instance from the earth to the moon. Preponderant or transmitted attraction exists only between antipolar conditions which in this way maintain the average equilibrium, and the attraction is the stronger, the greater the antipolarity.

To say that "matter attracts matter" means as much as that women attract women. In reality, feminality attracts masculinity and repulses feminality and vice versa. "Universal attraction" is a mistake. There is just as much repulsion as attraction.

The law of preponderant forces and energies is illustrated in the Appendix. It is also shown how through transmitted energies, the general equilibrium of the world's condition is maintained. The preponderant energies cause tensions, pressures, motions and meetings for the equalisations of stuff-conditions. Only these preponderant energies are exertive in nature and externally effective while those balanced in the substances are imperceptible.

Gravity is the preponderant attraction in the magnetism between differing celestial bodies. It differs from other such magnetic attraction only through its greatness. The sun

attracts the earth, because the larger parts of them are antipolar. Two suns of equal polar conditions repulse each other, or, if the resultants of each of their polarities should be apolarity, they would be indifferent to each other. Small bodies on earth are heavy because they are colder than the earth. This antipolarity is partly in the chemical conditions and partly in temperatures. The attraction per volume to volume need be but small, the size of the earth multiplies it to its greatness.

In the Appendix, magnetism receives the same classification as the conditions of stuff, the chemical, latental, temperal, but in a general view, it is required and agrees with experience, that the colder the bodies on earth, either chemically or in temperature, the heavier are they. It follows that in case we heat a body, we reduce its specific weight, which also agrees with experience. Yet the weights of substances, "atomic and molecular" weights, are not exactly true measures of their materities, because parts of the latter are neutralized in the substances. But the preponderant part is so much multiplied by the size of the earth that the other part is negligibly small, especially with the heavier substances, while with the gases it may play its perceptible part as is indicated by the smaller "atomic heats" of them.

The immense gaseous masses between the celestial bodies are induced to form magnetic atmospheres which intersect and extend indefinitely, transmitting the magnetic inductions between the bodies.

A falling body compresses the resistance of the air in front of it, thereby increasing its coldness which cools the body, increases its antipolarity with the earth and the attraction, expressed in the increase of its motion.

Now, there is Newton's law of gravitation. It differs from the other laws of nature which we have accepted, in this, that it is not an empirical but a speculative law and that it supposes an entirely different form of increase of a force or energy. The other laws, Dulong and Petit's, Ohm's, Boyle's, have been gained inductively from observations of experiments, but Newton's law has been deducted from spatial and mechanical circumstances which are not pertaining to the essence of things but are modifying relations.

Newton's law of gravitation starts with the unproven supposition that the energy of the fall, misleadingly called "velocity," increases uniformly. It is a mechanical law represented by the angle and cone, instead of by the logarithmic curve. But uniform increase includes the zero at its start. The energy that causes the body to fall, gravity, accordingly, begins with nothing and then gains equal amounts in equal units of time, wherefrom is not stated.

Newton's law which destroys "potential energy" and creates "kinetic energy" out of nothing, conflicts with the modern "law of the preservation of energy." The gravity of the body before the fall began was weight, at the beginning of the fall that weight was transformed into fall-energy, which, therefore, begins with a certain strength fixed by specific weight. It has no zero.

I am fully aware of what I am doing when showing "Newton's great law of gravitation" as a mistake. It has been the greatest obstacle to modern philosophy. It prevented the explanation of gravity. It compelled and fortified the mechanistic theory of nature. It made the ghosts seem impossible, theoretically.

In the Appendix, I explain this untrue law and the objections to it more fully—(A 9). Newton's law is the principle one of the mechanical "laws of nature" which make the spiritists appear as "frauds and lunatics." It is a great untruth which must be removed in order to prove nirvanaism. (A 10).

XXI. THEORIES OF NATURE.

Ontology and metaphysics are followed by physics as the third branch of philosophy, explaining nature. We have also a fourth branch, nirvanalogy, which concern itself with the products of nature.

The direct meaning of "nature" is birth. Its application to the world process dates from the time of matriarchism. Concluding from themselves to the world in general, humanity conceived the origin and production of new conditions and things as giving birth to them by the universal mother or matter.

Nature, (Latin: *natura,*) was the manner in which the

world-mother created all things. The word was maintained also when the naturing entity became a world-father and a pair of world-parents and is still maintained when we see that it is a hermaphrodite.

It was not wrong that the primitive philosophers borrowed their symbols from sexualism, because in regard to ontology and metaphysics, there is no difference between the organic and the inorganic, the difference is only in physics. To perceive the natural world as being sexual is true in principle, though the form may be symbolical.

Since galom is constant and stuff commensurate, there are no differences in the world but those of conditions. Nature, therefore, can consist only of changes of conditions. The question is now which direction has this process of changing the conditions of the world-stuff, and here it is where we meet the different theories of nature. Four propositions have been forwarded:

First, nature has the direction from the warm and soft to the cold and hard condition, it is, therefore, a general materialisation of the world. This theory of nature finds its principle representative in the Kant-Laplace theory of the origin of the solar system (A 11).

Second, nature has the direction from the cold and hard to the warm and soft condition, is, therefore, a general spiritualisation of the world. The latest notions in accordance with this theory are those forwarded by some experimenters with the heaviest and coldest substances of the uranium class, who actually believe that these substances create heat and transmute to substances with high specific heats such as helium.

Third, nature is a pendulation in the above two opposite directions, an everlasting meaningless forward and backward process, a perpetuum mobile, a circulation of forces, etc. This theory is the most popular.

Fourth, nature is the process of equalizing the conditions of the world-stuff and equilibrating the forces of this stuff, it has, therefore, the direction from both sides of the inequilbrating conditions, or from both sides of anti-polarity to the middle, the point of dynamic equilbrium or apolarity. This is the galomalistic theory of nature.

It is the first and third propositions which are most popular and often both accepted by one and the same scientist the first for his astronomy and the third, for his philosophy; inconsistency being the rule.

Materialism explains nature as a process of uneven distribution and redistribution of atoms, which in their interior have no need for it and do not change by it. Through mere mechanical and unexplainable motion the atoms condense to various substances and bodies of which the organic are the most peculiar, and then again they disperse to vapors and inperceptible gases, only to come back and go the same round again for all time.

Mechanics is the science of the motion and rest of bodies. Since nothing can happen in a world of material atoms and empty space but motion or change of location of the atoms, the materialistic explanation is rightly called "the mechanical theory of nature," but it is not the only theory which is mechanical.

The material world, then, is an ever-running machine, a perpetuum-mobile, which produces an destroys repeatedly and perpetually without cause or purpose and without ever consuming its motion and material. Scientists who most emphatically deny the possibility of a perpetuum-mobile in a small scale believe in it in a large scale. It is the size that imposes on them.

The world-process accordingly is a useless play of purposeless atoms which never began and will never end and which furnishes no final product, such as finished ghosts. A man also is a machine of moving, pushing, dancing atoms which finally fall apart when no individuality of the man is left. No believer in this mechanistic explanation of nature can accept the ghosts if he is something of a consistent thinker.

The spiritualistic theory of nature was not developed very far. A continual burning, "an eternal becoming," as Heraklitos called it, was nature to the genuine spiritualists. A final product of the process is also excluded in this case. Spiritualism knows no ghosts, that is to say, true spiritualism, as explained in a previous article. The world-spirit

may at times condense and take material conditions, but always strives back to the spiritual. "The world fell into matter;" nature is now the process of spiritualizing the fallen materialized world. The English experimenters with "radio-active matter" are helping this process along by "unlocking" the spirit or energy of the most material conditions, and by furnishing the opportunities for "atomic disintegration" and "self-transmutation."

The dualistic theory of nature explains it as a continual shifting of matter and ether or spirit. The material atoms remain moving as before, but instead of in empty space, they move in resistless ether, which plays no part in the performance except to get out of the way. But it is seldom the dualists handle their two entities consistently.

Somewhat differently defined is nature by the dualism of "matter and energy." Spencer explains it as "distribution and redistribution of matter and energy." Energy in forms of heat takes the active part as if taking hold of the atoms and moving them around like a horse a cart. But this energy is like a horse that carts earth from one dump to another and back again, the same circuit all the time, never getting through. It is evident that this dualism has no room for the ghosts.

The nature-theory of that energism which denies matter, differs from the above pendulatory theories inasmuch as it leads the pendulum to equilibrium and a stand-still, but it is not a dynamical but a mechanical equilibrium, that of even distribution of energy, that it leads to. Energism explains nature as an equalization of varying "intensity-factors" of energy. Of course any equilisation in any line leads to a condition of uniformity. The effect of the nature of energism is uniform distribution of energy in space. The process is mechanical, the result is mechanical entropy. But it is a general entropy, mainly in temperature, which cannot be represented by ghosts.

A dualistic energism with an active and a passive energy could perhaps postulate a notion of individualized entropy, similar to nirvana, but the unpopularity of the ghosts prevents the energists to establish anything so improfitable.

All the above theories of nature are mechanical, taking

into account only bodies, masses and their motion, not the forces. Dynamics is not the science of motion but of forces. The mechanistic philosophies have no such science. It is not a part of mechanics, it has its own laws, as shown in the Appendix.

Monistic mentalism explains nature as the thinking of its world-mind. This process produces ideas which are the things in the world. Generally these ideas are continually remodelled, but some of them may be lasting and then form the ghosts. It is not clear though, whether the "spirits" are mere minds from brains or whether they extended through the entire nervous system of the living. But they are pure abilities without bodies, conscious thoughts without brains.

But mentalism was combined with materialism. It placed mind above nature or the working of the material machine, it became supernatural. This is inconsistent with nature, the concept of which includes all processes and functions in the world, also those of minds, but I have no time to point out all the inconsistencies of this semi-supernaturalistic dualism. Nature here also remains what it was before, the everlasting rush of the material machine, but each living machine, such as a man, is manipulated by an individualized piece of the supernatural mind, which leaves it at dying to exist as a "supernatural spirit."

It is a peculiar fact that of all the old philosophies this phantastic unscientific dualism of "matter and mind" or "nature and spirit," or "the real and the ideal," or "the physical and the psychical," or whatever the two entities are called, is the only one which can admit the existence of ghosts—no natural ghosts though, but "supernatural intelligences," commonly called "spirits."

The galomalistic theory of nature means: The world-process is directed neither from the warm to the cold nor vice versa, nor does it pendulate, but it works from both sides to the middle. Nature is the process of equalizing the anti-polar conditions of the world-stuff and equilibrating its counter-forces. The most effective form of nature is organic life and the products of it are the vegetable, animal and human ghosts and the resulting condition is nirvana.

XXII. THE LAW OF NATURE.

Since that English judge who pronounced the medium Slade, guilty of fraud, based his decision on the testimony of experts who said that "spiritism" is against the known laws of nature, an assertion often made by opponents, these laws should have been the main subject of discussion for the "spiritualists" if they were "up-to-date."

The "great known laws of nature" referred to are the mechanical laws of materialism, and anyone who knows both, "spiritism" and these laws, must admit that there is a deadly conflict between them, and that if the one is true, the other is not.

Except supernaturalists, everybody considers it a self-understood matter, that all happenings in the world must take place within the laws of nature if they are *the true laws* and no mistaken fictions of speculators. Let me put the issue clearly: If the laws of nature of materialism are true, no mediumistic demonstrations will ever be sufficient to prove the existence of "spirits"; they simply cannot be.

Some "modern spiritualists" have avoided the struggle against "the great known laws of nature" of materialism by taking the position that besides these "material laws," there are also "spiritual laws," which reminds of the time of Galileo when the starters of modern science, to avoid being burned at the stakes, advanced the suggestion that there were two kinds of truth, "religious" truth, according to which the sun swung around the earth, and scientific truth, according to which the earth swung around the sun.

As there is possible but one truth, so also but one true law of nature. Truth is the agreement of our ideas with facts and things as they are, and a true law is the mathematical representation of essentally and circumstantially required actuality.

Commonly a law is a rule of action made by a power. A law is always made and if referring to social matters may have various applications. We may abide by it or break it. The ruling necessities in nature, founding in the essense and conditions of the world-stuff and modified by circumstances in space and time, were also conceived as

laws made by a supermundane law-giver, and were, therefore, called "the laws of nature." Science has dropped the religious sense of it but has kept the term.

According to the scientific use of the term "laws of nature," they are not made by a power nor are they contained in reality, but they are formulated by men to express the necessities for nature and the circumstances in nature, in order to define and predict the form of processes as required and fixed by the essence and conditions of the world. These laws, therefore, are evervalid, unchangeable, all embracing, unavoidable, exceptionless.

But a law may not only be that of nature as a process but also that of conditions and essence. If the law that expresses essence is known, the others follow. There being but one essence, there can be but one law of nature as the mathematical form of all happenings and processes, necessary by existing conditions of the world-stuff.

The "laws of nature" are of two classes: empirical and speculative. The empirical laws of nature, such as Boyle's in physics, Dulong and Petit's in chemistry and Ohm's in electrics, which are all accepted and embodied in the one law of the inverse proportionality of the counter-forces, are not those "known laws of nature" which make our ghosts impossible because no philosophy heretofore has made use of them, they agreeing neither with monism nor dualism.

But the *speculative* laws of nature of materialism, which are the same as the laws of space and time, bodies and motion, or of the science of mechanics,—these are "the known laws" on which the opposition to "spiritism" is based, and these laws I prove to be delusions.

The mechanical laws have not been gained by careful experiments with stuff, like the empirical, but they have been speculatively deducted from the conceptions of space and time. They are the laws of spatial circumstances and as such are laws in nature, modifying the law of nature which refers to essence, forces, conditions and actions.

But the mechanical laws of rest and motion have also been applied to forces and energies, thereby making dynamics a part of mechanics. These laws are based on the supposition of uniform increase of a natural force, while the em-

pirical laws show a geometrical increase. The principal difference between these laws regarding the forces consists in this: the speculative laws are represented by an angle and the empirical laws by the figure limited by the logarithmic curve and its axis. The first include the absolute zero of a force and the latter exclude it.

The mechanical increase is shown best with a machine, it starts its work with a zero and then produces a certain quantity in every unit of time, according to arithmetical progression. But nature never starts with a zero but always with a certain quantity, like in the production of bacteria of which one becomes two, these four, these eight, etc. The difference between mechanical and natural production is now as follows:

Machine: 0, 1, 2, 3, 4, 5, 6, 7, etc.

Nature: 1, 2, 4, 8, 16, 32, 64, 128, etc.

Nature is no machine. These two progressions as laws of forces show in the simplest manner the difference between "the known laws of nature" which are untrue and, the new law of nature which is a proven truth. In the Appendix more complete proofs are to be found.

Nature being the general process of equalizations of stuff-conditions, the law of equalization is the immediate law of nature. Here now we meet "a known law of nature" which is a peculiar compromise between the mechanical and the empirical laws, but wrong all the same. It is Richmann's law of equalization which has been accepted by the materialists and not yet objected to by the energeticists. (A 12).

The illustration of this law in the Appendix shows that it supposes the indistrutibility of matter and the constancy of the product of matter times heat, our galom, but it destroys heat. Why not? To materialism heat is but a property of matter and properties are destructible, only entity is not. The said law was formulated before "the indistructibility of heat" was proclaimed as a consequence of "the law of the persistency of energy."

The energeticists have not yet objected to Newton's law which lets a natural energy start with nothing, nor to Richmann's law which destroys a natural force partly, neither have they conformed to the empirical laws. Of official

scientists it could hardly be expected to oppose Newton's laws and independent philosophers, there are not many.

The galomalistic law of equilization as illustrated in the Appendix, is a part of the mathematical representative of the entire system of galomalism, called contravaxantism, but I cannot demonstrate it here. From what has been established before, it is evident that the following conditions are required from the true law of equalization: first the constancy of galom, second the permanence of stuff or of the total mass of the equalizing substances, and third the equal importance of the two counterforces.

For instance if the one substance has 2 M x 16 P and the other 8 M x 4 P for its factors after they have equalized the factors are 4 M x 8 P; they are now the mean proportionals of the forces of the elements. Their product remains constant but the forces which have no being, are no entities, reduce with each equalization, as required to maintain the constant product. The law of persistency is applicable only to that which has being, which in the last instance is nothing but stuff, maintaining its essence. But forces and energies are changeable and reducible and properties are destructible.

The equal importance in opposition or the equal essential strength of the counter-forces shown in the law of equalization of conditions causes the continuance of this process until the condition of dynamic equilibrium, nirvana, is reached. The law of nature leads to the final zero of nature.

XXIII. INORGANIC LIFE.

Organic life being supported by inorganic life, the study of the latter is fundamental for the study of nirvana, because in the inorganic we find much simpler forms and conditions and yet the same essence and law as in organic life.

The condition of the dimensionless mass of stuff of the world is not uniform. Particles separate into various conditions and form many substances. These conditions are mainly temperature, electricity, the chemical and latental conditions and those of organic life and its products.

If we now call the average or middle condition of the

world-stuff, where the counter-forces are equally strong, the zero of dynamic preponderance and the equilibrated substance at this zero the zeron, then the entire world would consist of zeron if nature, the equilibrating process had accomplished its task.

This theoretical zeron is fully corroborated by facts. We know at present several indifferent or dead substances, the so-called "reactionless elements." Their names are argon, neon, krypton, and xenon. They are dead because they enter no action and take no part in nature. Only under such great strains as exercised in a laboratory do the dead substances materialize their latent conditions from the gaseous to the liquid, but that is the only change they undergo; they cannot be induced to enter a chemical process.

While it is said of the substances of nature that, on account of their interior constitution, they are temporarily at "lable equilibrium," the substances of death are at "stable equilibrium." It is a fixed interior equilibrium of the counter-forces which causes these substances to be self-sufficient, indifferent and inaffectible. These inorganic substances differ somewhat in their chemical conditions; they have been placed into different chemical periods as if each such period had its own antipolarity and dead point. It would indicate that inorganic nature cannot reach the final point of perfect dynamic equilibrium. But we must go slow with that conclusion.

Helium has also been found to be a dead substance. It originates in the liveliest of lifes and arises like a phoenix from the hottest of fires. It is the product of the combustion of radium and hydrogen. The experimenters have not seen this combustion but still believe that radium is doing it all alone, contrary to the laws of nature. "Atomic disintegration" and "transmutation" form important parts of their explanations.

According to Dulong and Petit's law, the heavy substances of the class of uranium must have a very low factor of heat and can, therefore, not furnish the heat radiated in the process in which such substance plays part. But people who believe that coal when burning furnishes the heat of

the fire instead of the oxygen, may also believe in the locked up heat of radium doing such wonders when "unlocked."

Hydrogen, present in the air to a small degree, can pass through enclosures as well as helium, if strongly attracted, and can continually come in contact with radium to produce helium, or, if radium lies in water, hydrogen can be gained from the water to produce argon like organic life gains hydrogen from water to produce zeron.

If we assume that the passive force (materity) of uranium is 240 times as strong as that of hydrogen (it weighing 240 times as much) than the latent heat of hydrogen is 240 times as strong as that of uranium and with equal amounts of materity (say weight) of both, the former holds 57600 times as much heat as the latter, if measured as quantities. Before equalizing chemically with uranium or radium, hydrogen changes a large portion of its latent heat into temperal heat (heat in temperature) which is then "the large amount of energy produced by radium" as wrongly conceived by the experimenters. Fortunately, on earth, this process is very limited but the sun with its virgin elements has an atmosphere rich of hydrogen and in it burn the vapors of the opposite chemical extreme, such as uranium, radium, etc., producing helium and freeing an immense amount of heat of the hydrogen, the solar heat.

On the sun there is the liveliest of inorganic life between the extremes of chemical reality and without requiring organic life, these extreme conditions with one immense action jump to zeronity, into nivana at helium and to that extent that it has become helium the sun is dead.

Where there are no nebulae, the interstellar spaces are filled with dead stuff which was never in polarities and never went through a process but was dead from eternity. The dead stuff transmits any influences, such as inductions and radiations, indifferently. Ether there is none.

The part of the world in anti-polarity is comparatively small, being limited to the celestial bodies, their atmospheres and the nebulae. Argon, the principal dead substance, reaches way down in our atmosphere, touching the surface of the earth with a small percentage of the air. Argon is not "the primitive substance" from which it might be sup-

posed the others have sprung by an inconceivable act of inequilibration of its forces, because this is impossible, but as representative of death it is the substance similar to which all living substances will become when they have passed through nature.

If the chemical heat of hydrogen is 240 times as strong as that of uranium, and if we call this difference 240 degrees, then it is probable that the absolute zero of chemical heat, which of course is unreal and purely theoretical, is 256 degrees below the heat of hydrogen. The middle of chemical gradation then lies at 16 M x 16 P, which becomes the equilibrating point of chemicature and the condition of zeron.

At this middle is the zero of nature and here is nirvana. Near to this point are also the dead substances in their normal atmospheric conditions, taking both the chemical and physical into account. But near to it is also the atmospheric oxygen. It is also indifferent but for physical reasons of "interior constitution," its equilibrium is but lable, not stable or fixed. In order to enter polarity and become active, oxygen burns which means that it first frees more than half of its latent heat and becomes ozone which then is eager for chemical life.

If the apolar zeron is about 16 times as heavy as hydrogen or about as heavy as oxygen, it gives us some idea of the specific weight of zeroids or the ghosts; which are attracted by the earth mainly for physical reasons of temperature.

Chemical equalizations of anti-polar substances, such as solids and gases, or of periodically polar substances, such as acids and bases, are the most circumstantial because they require the opening of interior constitution and unbalancing of "lable equilibriums." In the Appendix to this article I oppose the materialistic notion of "chemical combinations" and "multiple proportions," and their mechanical laws. (A 13).

The product of chemical equalization is a new substance which is not an addition or combination of the forces and properties of the elements, but has a new condition, the relation of which to the elementary is generally unnoticeable. The elements sacrifice themselves in the generation and creation of a new substance with a new character of its own,

and in that sense, the entire nature in the world is a grand process of generation and creation of the final substance, zeron.

Now let us look at another piece of inorganic life: Of a pair of suspended equal balls, we make the one "positively" (matero-) and the other "negatively" (patero-) electrical. We have now an electrical couple of lovers who desire to come together for life. The overweighing electrical forces, as explained before, want the equalibration and this desire is expressed by the attraction between the balls which feel each other and are "conscious" of their locations, never making a mistake.

These balls move together, meet at the middle of their way, touch and commit the act of equalization by transmission of patero-electricity (negative) to the matero-electrical ball (the positive). The balls are now equal, but if still the one or other electrical force is preponderant in both of them, they repulse each other and are attracted to the outer world, which causes them to divert. When also equalized with the outer world, they hang in their perpendicular position, electrically dead.

Similar stories of anti-polarities, love and life, equilibrations and indifference could be told of couples in temperature, but here life is quieter, because temperatures are not as loose and quickly equalized as electricities.

Inorganic life consists of temperal, electrical, chemical and combined equalizations, accompanied by latental changes. The magnetic energies represent the motive necessities in this life and the circumstances in space and time form the mechanical modifications of it.

XXIV. ORGANIC LIFE.

While experimental science reduces organic substances to inorganic and, reversely, produces from inorganic substances organic, thereby overstepping the supposed abyss between the two forms of life, or rather finding that there is none except in forms where the science of evolution overbridges it; while, now, the natural sciences merge all forms of life into one grand nature, materialistic philosophy still halts at the abyss, unable to cross it.

E. Dubois Reymond gave this antiquated philosophy the finishing stroke when he showed that with the atomic hypothesis and the mechanical theory of nature it is impossible to explain the simplest nerve-affects, such as desire and undesire (lust and unlust) and his judgment of the "Ignorabimus" stands undisproved by the representatives of the mechanistic theories. It terminated the materialistic period of philosophy of the nineteenth century.

Materialism was followed by energism, or modern energetics, a modernized revival of spiritualism. It has done some nice work but in regard to organic life, it has not done much, though it was an example from this life which was used by R. Maier to demonstrate "the preservation of energy," which led to the establishment of energy as an entity.

How a restless "stream of energy" could create individuality and all the features of organic life is incomprehensible, not to speak of the cause and object of life. Mechanical accidence as cause of life, and no object at all is what the energeticists are inclined to accept from materialism.

All monistic and dualistic philosophies are bound to have mechanistic theories of life because their entities do not permit of anything but shifting in space like the parts of a machine. A mechanism can be made to walk and talk because these are mechanical possibilities, but it can not be made to feel and think because these are functions which lie outside of the notion of a machine. It takes an engineer to run a machine, but "the vital power," which was formerly appointed to be that engineer was discharged by science.

A man is not "a machine." If a symbol is wanted, let it be "a natural laboratory," but we should be big enough to get along without symbolism.

In the previous article inorganic life was explained as the process of equalizing anti-polar conditions of the world-stuff, and the law of equalization was explained. But that law, representing metaphysical reality and the necessities therefrom for nature, applies to nature throughout, organic life included. A true law of nature admits of no exceptions.

Inorganic life consists of elementary equalizations, especially in temperature including electricity, but in regard to the chemical conditions generally only so far as liquids,

and especially gases directly come in contact with the various solid substances in favorable physical conditions, especially in the required temperatures and the inducements of catalysts, such as light, electricity, fire and enzames.

In order now to reach apolarity also in regard to chemical condition, inorganic life is insufficient because it does not bring the substances together in the required manner. For this reason, say for the chemical reason, it was required to develop self-working laboratories which have evolved to organic bodies.

In organic life it is also apparent that the counterforces, materity and paterity, are not satisfied until they are balancing each other. The two sexes, therefore, try to establish by love and co-operation the equilibrium which each unbalanced hermaphrodite is missing in itself. The beautifying interaction between the sexes, developing art and the instinct for beauty has done its great part in the evolution of humanity and civilization.

The investigation of the forms and evolutions of organic life have made such progress that "evolution" is no longer a matter of hypothesis but a scientific fact. Yet this science does not include the explanation of the cause and object of organic life, which could never be explained with the mechanistic hypothesis of the extremistic philosophies. Embryology and geneology have combined to an aspect of organic life on earth, so complex and grand that the childish picture religionists gave of it has faded. Finding simpler forms with every step backward, those who are somewhat acquainted with the facts have no doubt that organic life was evolved from inorganic.

We see daily how the organic bodies live on air, water, salts, earth, etc, besides, of course, eating substances that have already entered organic life. All organic substances can be changed to inorganic. When chemistry arrives at the ghosts, it will find, that their substances can also be reduced to inorganic, but it will meet "reactionless substances" which will be hard to work.

Artificial pharthenogenesis or the substitution of an inorganic chemical substance for the male germ in the fructifi cation of the female substance of urchins and similar animals,

shows the close relation between some inorganic and organic substances. The principle of hermaphroditism holds good in both and antipolarity is required for both forms of life. It is, therefore, fitting and proper to call the counterforces *materity* and *paterity*.

When on our planet the loose conditions, temperature and electricity, were equalized sufficiently in an inorganic manner to become temperate, zeronic or mild, the chemical conditions began to get lively and enter equalizations which they refuse to do in extreme temperatures. This established fact that the chemical processes are advanced by temperate temperature is very important in regard to organic life which is principally chemical life.

The mechanical difficulties of meeting and touching of the chemical substances, scattered in chaotic distribution, prevented an easy process. To overcome these difficulties, organic life developed, simply to evolve self-working chemical laboratories, as remarked before. These organic bodies have gained the ability to gather and prepare the various substances and to place them into themself, where then the equalizing process takes place with all the many features of life.

The leading abilities that were evolved in the organic laboratories are their mental ones. Minding in its many forms is done through chemical and physical processes as well as any other actions of organisms. Psychology is a branch of physiology.

All that we are here for is to labor in the selective introduction of chemical substances into the interior process of complete equalizations of stuff-conditions up to nirvana, because no other process leads so well to this final result. Nature requires the form of organic life to overcome the chemical and mechanical difficulties, and if these were not so great but as easily overcome as the temperal and electrical, no organic life would be required and exist; inorganic life would reach the zero without it.

Since the complete chemical process requires temperate or zeronic temperature it was required that the organic bodies evolved in such a manner, that they could maintain the average temperature internally and seek it externally, be-

cause otherwise the chemical substances they swallowed refused to act in order to get nearer and nearer the chemically temperate condition.

Organic life is mainly chemical life and the trouble it involves is to get the chemical provisions for it, but these troubles were the cause of the evolution of mankind, these troubles and all that is connected with them, including progeneration and the beautifying interaction between the sexes, have made organic life what it is today.

It follows that a proper combination of the economistic and sexualistic conception of the affairs of humanity and of history will be the true one if consistently developed, because it will agree with the true theory of nature. The stomach question is the principal question of practical life and, therefore, social economy the most important matter of public life. To find the best method of production, distribution and consumption of food and the most favorable conditions of progressive generation and creation is a great problem, far from being solved in present society but indicated by the scheme of social-democracy.

XXV. FORMS OF LIFE.

It is a very multiformous life that has evolved on earth. But the science of evolution has shown that these many forms mean simply improving adjustments to the circumstances and difficulties of life, especially to the best methods of obtaining food and secure progeneration. It was at bottom the requirements of digestion and love that made humanity what it is today. The brains of men and their mentality or their capacity to perceive and mind how best to obtain the provisions for life, also resulted from this struggle. A strong instinct of self-preservation was evolved in order to maintain life until its natural object, the production of a nirvanal body, is obtained.

The fact that the simplest protoplasm is found on the bottoms of waters indicates that this is the place of its origin. If we try to picture that origin in accordance with what we have gained, we must suppose first a washing together of many chemical substances. Under the kindling influence of

the sunlight causing a mildly warm temperature, these substances, including carbon, oxygen, salts, water, etc.,. start among themselves a process of chemical equalization.. More varying substances are washed to and introduced into the process, which began in the solid and leads to softer states until it reaches a state between the solid and liquid, the slime. In this slime condition it stays as far as being perceptible to the senses.

It is arbitrary from what point in the evolution of these slime bodies we call them organic; they should not be called so until they have organs. Therefore, as long as they are depending entirely on the washing-to of their materials without making efforts to gain them, they are not organic.

But in some cases, to carry the process further than can be done with the washed-to substances, the slimebodies must gain substances nearby which do not touch them. In order to introduce such substances into their chemical process of equalizations, the slimebodies extend parts of themselves to reach and fetch these substances, as is well known. They also develop bags to collect them which become stomachs. They then develop the ability to move around for the collection of food. They are now organic bodies, no matter how primitive the first organs may be.

Hauling and preparing the food and caring for the other necessities of a complicated chemical process which leads to an equilibrated chemical condition, caused the evolution of organs and organisms which finally gained consciousness by perceiving individuality and generality. It is, of course, understood that galomalism agrees with modern physiology in considering minding or mind as a capacity of highly organized brains and not as an entity.

The physiologists are satisfied if philosophy shows them the elements for the development of the simplest psychic features of life, such as feeling and desiring. Materialism could not furnish the proof that all the various forces and actions of organic life are already to be found in inorganic life in elementary forms, because the passive atoms are in themselves perfectly lifeless and inaffectible and a group of them, no matter how nicely constructed, remains a mechanism without feeling because the material it consists of cannot

be influenced. Neither could dualism explain feeling because the two entities of it have no other but mechanical relations.

In the article on inorganic life I showed on the example of an electrical pair, how it feels, desires, acts, lives and dies. The chemical pairs in man do the same and their lives are composing that grand complex called the life of man. Infinite affectibility of the condition of galomal stuff enables the evolution of organized feeling.

The individual organism finishes its process, dies and partly arises as a phoenix to enter the sphere of the ghosts. To maintain organic life, the evolution of sexuality was required. Both forces, materity and paterity, are in the slimebody nearly equally strong. Materity or chemical cold is attracted by the warm south and paterity or heat by the cold north. The slimebody finally polarises as bacteria do under electric influence. In the middle is the indifferent section where the two halves, pulling in opposite directions, separate. We have now two slimebodies, each continuing life, polarizing and becoming two, etc. A dying as with the higher organisms is not to be found with the lowest, but it is likely that the ghost of such an organism escapes at the time when the individual body splits in two. Phoenix in this case does not arise from ashes but from remnants which became two new individuals.

We need not follow it up, that from the falling apart into two individuals of the first organisms has developed organic sexuality up to man and woman, because this is a matter of evolution. Inequilibration of hermaphroditism was required for it.

From the slimebody with its first attempt at organs to man through the long line of evolution is a great genealogy, reinacted in embryology, but all these various evolutions were but better adjustments of the organisms to the difficulties of life afforded by the chaotic distributions of the chemical substances wanted for this life.

The science of evolution explains the forms of life, but it gives no explanation of the cause and object of the entire difficult struggle. The discovery of the essence of the world-stuff was required to answer all those questions. The cause of organic life as well as of the inorganic is the existing

inequilibrity in the condition of a part of the world, and the object is the establishment of dynamic equilibrium.

From the electrical pair which we observed in the previous article to the first slimebodies and from them to the highly organized substances of men, there is not a condition the forces of which are not materity and paterity and the energies of which are not repulsion and attraction. All these forces are the same factors of galom whether found in water, rock or man. There is but one world and one nature and if this were meant by "monism" it would be true, but metaphysical monism means something else, as explained.

"Life is exchange of stuff," (Stoffwechsel), is a favorite sentence of German materialists. A great amount of various substances rushes through us while living, but that part of it is only circumstantial. The real process for which this rush is instituted is the chemical equalization of the selected substances which gradually leads to the production of a body within the body, consisting of ripe stuff or such as has attained fully or nearly the equilibrated condition. To produce a body of zeron, a ghost, in the visible body, is the object of that "stuff-exchange."

The object of life is to attain death. Life is the rush for nirvana. Life itself may be nice at times when taking place in favorable circumstances, but as a whole it is a hard struggle for the lasting happiness in nirvana.

Since I am not so much concerned with details as with principles, I now have established the following points in regard to life:

1. The essence of stuff, galom, is the same in the organic body as anywhere else, consequently, there is no essential difference between the organic and the inorganic parts of the world.

2. The law of nature is the same for both forms of life and the mechanical law the same for the circumstances in both.

3. There are no forces, energies and actions in organic life, including its mental features, which are not to be found in elementary forms in inorganic life.

4. There are no organic substances which have not originated from inorganic substances.

5: There is no essential difference between the two forms of life, but all the differences have originated in life itself; both together are nature.

6. Inorganic life is the basis of organic life which originated from the first as a more appropriate continuation of it for reaching nirvana.

7. All life is equalization of conditions and equilibration of the counter-forces of the world-stuff.

8. The final result of life is the apolar, zeronic, indifferent, dead condition of stuff, dynamic equilibrium, nirvana.

XXVI. THE RESULT OF LIFE.

The end of life is death. This seems to be very plain, but it is not so plain when we say: *The result of life is death.*

What is death? Modern science acknowledges not to know it. It knows a good deal about the course of life but nothing about its origin and result. The materialists, of course, know all about it, but materialism is not science.

We have seen in the third article that the word *death* has been derived from "nirvana" which signifies the condition of life being extinguished without individual existence being destroyed.

Where burning life has come to an end, where the process of equalizing antipolar conditions of the world-stuff has finished, where the condition is normal and the counter-forces equal, there is the final result of life, the individuals finish and ripeness, nirvana or death. Dead substances like argon, helum, etc., take no part in life. Nature requires antipolar conditions and substances.

It is one of the most unnatural yet consistent conclusions of materialism that the organic life process ends resultless, "Dissolution" Spencer calls this ending, meaning that all the result affected by life is what is represented by the corpse, a most miserable result of such a great effort.

It is a matter of daily experience that every other process gains a product, but the grandest of all processes, human life, is supposed by "the enlightened" to be resultless. This inequity be placed together with the other that perpetuum

mobiles in a small scale are impossible but that "the universe" is supposed to be one, or the other, that the laws of Boyle and Dulong and Petit are true but that there is a supposed zero of heat where they are not true. Swarms of inconsistencies and unwarranted suppositions in the philosophical woods have heretofore prevented natural ghosts from entering.

The belief in the uselessness of life was nourished mainly by the opposition to supernaturalism which covered death with its darkness. As a whole this opposition was useful, resulting in the downfall of supernaturalism and the abandonment of it by most thinking men. But while there are no supernatural beings, there still are ghosts. To pour out the baby with the bath is always a rash act.

Some energeticists have fallen in with the general materialistic prejudice about death. To avoid individuality in death, they explain life as a temporarily stable stream of energy which at dying loses its stability when the energies leave the individual formation, disperse and enter other "streams of energy."

The "continual streaming of energy," formerly called "eternal circulation of force," which was also meant by Heraklitos "eternal becoming," a truly spiritualistic idea which allows of no equilibrium and death, is inconsistent with the second decree of energetics, saying that actions are "equalisations of intensity-factors of energy." Consequently the supposed energies do not circulate but go the straight road toward an equalized condition of energy where there are no longer any different factors of intensity.

The German notion of "the entropy" as gained by the energeticists should cause them to study nirvanaism carefully. The dualist Claudius, believing in matter and energy, formulated the result of entropy as follows:

"The entropy of the universe advances to a maximum. When after a very long time this maximum is reached, there will still be the original amount of energy, but, in form of heat, it will be uniformly distributed through a uniform clump of matter. There will no longer be differences in temperature and as these are required for the generation of other energies from heat, they will be missing. All mechanical

motion, all organic life in the world will cease, the world-process will stop and the end of nature will be reached."

This sentence is logical. It is, therefore, illogical for any energeticist who accepts the second decree of energetics, to believe in a universal perpetuum-mobile as transmitted by the materialists. The running world-machine has to come to a standstill for want of unconsumed energy. The energetical death means either uniform distribution of matter and energy or mechanical balance of two opposite energies or even distribution of a unitary world energy, according to what is postulated.

The entropy of energy is meant to signify that part of the worlds supposed energy which is neutralized in some way and acts no more. The process of entropying energy, though not clearly explained by the energeticists, is not supposed to be individualized, for instance in organic bodies, but is supposed to extend beyond all bodily limits similar to the equalizations of temperature. The idea of entropy in the German sense includes the belief that all the latent and chemical conditions will finally become temperature and as such will reach the equalized state, for which there is nothing in science to warrant it.

The equilibrations of the forces in temperature including electricity, are a very important part of nature but they are the easiest part, requiring no organic life, while the equilibrations of the forces bound or latent in the chemical conditions require equalizations of substances which must form bodies and, thereby, individualize the process, and these bodies are the organic and their products remain organic individuals.

It is only in this individualized process, entered into by substances from all the realms of anti-polarity that the final and total equilibrium of the counter-forces is accomplished, chemically as well as in temperature. Not in "inconceivably long time" but yesterday, today, tomorrow, the organic individuals reach this final condition, but it remains individualized, it is the individual nirvana. It may be considered as a piece of the final world-nirvana, but that is not the main point of interest to humanity.

Individualized nirvana is represented by a big mass of

vegetable, animal and human ghosts, who are of special interest to us, because humanity represents the most perfect and leading part of the process on earth which produces the world of ghosts out of the inorganic raw material of antipolarity of the earth and its atmosphere, including the heat that comes from the sun.

The ghosts are the final results of life and not what is left behind as rotting corpses. If the energeticists will follow the idea of entropy consistently and apply it to the chemical forces as well as to those that have entered temperature, they will find not only that individualisation of the entropying process is required in order to establish laboratories for it, but also that there is only one direction of this process, that to death or nirvana.

There can be no retrogression in this process. Any detailed act of any kind is an equalization of conditions which establishes a temporary middle, a complete action, such as the whole of a man's life, partly here, partly over there, is directed only to establish the final middle of all entering conditions of stuff, which is nirvana.

The chemical equalization of two elements can be reversed, but only through an interfering process of greater equalization. There is no backward direction in nature. Every process produces a product nearer to nirvana than the two elements were together. It was, therefore, contrary to experience and logic to conclude that the equalizing process *par excellence,* the organic life-process, should have no lasting result. The result of life is nirvana.

XXVII. NIRVANALOGY.

After ontology, metaphysics and physics follows now as the fourth branch of philosophy, nirvanalogy, or the science of nirvana. Physics or the science of nature cannot include it, because nirvana is not nature but the result of it.

Nirvanalogy, based on the other three branches of galomalistic philosophy, is not an isolated teaching of ghosts as the supernaturalistic theory of spirits is isolated, but it is the keystone of the arch of galomalism. The work of nirvanalogy as an explaining science has four branches: the historical, the experimental, the theoretical and the agitatory.

The historical work includes the investigation and explanation of all the remnants of prehistoric and ancient teachings of nirvana, such as may be found in Egyptian, Indian, Babylonian and other old records. It also includes the exploration of the great symbol of phoenix and its separation from the doctrine of reincarnation, the cause of which also wants to be explained.

Also the ancient legends of the Styx, the Elysian fields and others referring to death should be readjusted as it will be found that they were all related to the old nirvana. The materialists have pictured these matters as mere "mythology" by which they mean fiction without any basis of facts.

The "heavenly blessedness" Christianity promises to its believers, is another remnant of nirvana, as are the winged angels of phoenix. Christianity transmits many other remnants of nirvanaism as it does of sun worship and true spiritualism.

In the historical work is also included to show the transition from naturalistic nirvanaism to the supernaturalistic theory of mentalism, and how, notwithstanding the fall of philosophy and science into this dark abyss which caused "the dark ages," the common people preserved nirvanaism with its phoenixes, angels, heaven of eternal happiness, soul-peace and rest.

Modern spiritism also requires a chapter in the history of nirvanaism. As far as the facts are concerned it is nothing but nirvanaism, because the ghosts that manifested showed themselves dead enough, not withstanding their pretensions and even with the borrowed living medialum which was furnished them more systematically than ever before. But, of course, as far as the phraseology of the "modern spiritualists" and their platforms is concerned, it is nirvanaistic only in regard to the ghosts happiness but not in regard to their abilities, yet it must be remembered that that phraseology is borrowed from the churches and carried into spiritism by the dead and the living, where it cannot be made to agree with the facts. Especially does it agree but little with the spiritistic, not spiritualistic, idea that "the spirits are natural beings."

The churches, representing supernaturalism, are of

course and always must be opposed to facts and theories which make the ghosts appear natural. Since the churches are outside of scientific argumentation the best policy seems to be to leave them to their own fate if they do not interfere with our work. Talmage said: "Spiritualism is undermining our churches." Not if they can prove supernaturalism. And as to the clerical ghosts who do things in mediumism which appear as fraud of the mediums so as to hurt "spiritism" they can be made harmless in cases where the facts are known.

The experimental work of nirvanalogists consists in their labor in the three classes of mediumism as outlined in previous articles. Experiments with mediums and ghosts have already furnished much material, but, working with a false hypothesis, the mentalistic, the experimenters have left that material generally in a poor shape. Experiments serve to find facts which are to be explained by theory, but if a true theory leads the experiments, many valuable facts are established which without that theory would have never been looked for.

In scientific experiments, especially in the two first classes of mediumism, the question of "fraud" does not really exist unless the experimenters are poor scientists. But the fear of fraud has caused many scientific investigators to insist on conditions which were against the nature of mediumism and led to failures. To be really scientific and successful in mediumistic experiments requires to first study all the conditions of the process and then act accordingly with great patience.

Fraudulent mediums are, of course, to be exposed, but the cry of fraud is generally raised by people who know but little of mediumism and nothing of the deceitful work of reactionary clerical and fanatical ghosts (generally called "jesuit-spirits" by the mediums), who miss no opportunity to injure this modern movement by shamfraud. One of the requisite conditions of scientific investigation of the mediumistic facts, therefore, is to beware of deceiving ghosts who are hostile to "spiritism" because their ambitions are connected with supernaturalism and the institutions upholding it. Before the fraudcry is raised, it wants to be ascertained if the apparent fraud was not a trick of hostile ghosts. This

includes cases of paraphernalia in the cabinet, which may have been apported there, grasping the medium outside of the cabinet where it may have been led through "transfiguration," and many other such queer things which are within the possibilities of mediumism without fraud on the part of the mediums. Hostile ghosts and unscientific sceptics cooperate to effect exposures.

Ghost-proof seance rooms where only friendly ghosts are admitted will reduce the danger of such "exposures." Such rooms are possible since it is known that glass plates and plastered walls are barriers to the ghosts and that a living person can attract and repulse them with his or her volitive magnetism, and can therefore, either admit them or turn them out.

Modern spiritism, progressive as it has been in many respects, was hampered by the belief in "higher beings," so little applicable to the ghosts as they show themselves. Where belief and facts did not agree, "fraud" was the explanation and the "dupes" went back to the churches.

The theoretical work of nirvanalogy consists of course in the explanation of the world of nirvana. The ghosts, their substances, conditions, forces, properties, possibilities, etc.; also their homes, mode of existence, etc., have to be explained in accordance with the principles of galomalism. Also the peculiarities of mediums, the effect of light and other features and conditions of mediumism have to be studied and explained and their application to be defined.

The "reactionless substances" of the zero-group, both of the class of argon which in general is probably of prenatural existence and of helium which is of natural origin, are of great importance in the demonstration of the properties and conditions of zeron, the ghost substances.

The theory of nirvanaism finally must give a complete understanding of the ghost-world, there being nothing unknowable about it.

"Psychical research" hardly applies to materialisation and spiritualisation but has resulted in the accumulation of many facts of animations of mediums by ghosts. To put a ghost substance into a retort and investigate its nature will lead further than psychical experiments. There is no more

difficulty about such chemical and physical investigation of zeron than there was of argon and its class, except that prejudices have to be overcome. Nirvanalogy is not psychology except as this is a branch of it, as it is of physiology.

The practical applications of mediumism, such as prophecy, advice in business, guidance in life, etc., partly fraudulous and mostly hurtful, should be limited and made harmless, for the harm they have already done is great. Mediumistic healing, the possibilities of which are not yet clear, should be controlled by physicians who make this matter a subject of study. "Telepathy and psychometry," sources of much deceit, are to be opposed or, where facts are behind them, brought back to mediumism.

The agitatory work of nirvanalogists, "who will be paid in heaven" if not here, consists in teaching nirvanalogy and convincing humanity of its truth. The terms and symbols of supernaturalism should be avoided as much as possible. Scientific truths are simple and their expression should be simple. Symbolical phrases may sometimes be useful but generally lead to misunderstandings.

Phoenix is the emblem of nirvanalogy. With phoenix we win!

Practical demonstrations of the existence of ghosts are required and valuable, but that should be the limit of public use of mediumship and all interference with the affairs of the living should be avoided. To find persons with natural inclination to mediumship, especially in their sexuality, to develop them, protect and encourage them, place them outside of "business" and use them for the enlightenment of humanity on this important subject is a very much needed work.

Ethics are not directly a matter of nirvanalogy. Of course, ghosts are human beings, very human indeed, some angels and others devils, according to partial judgments, but that is because they have human peculiarities, ambitions and interests, especially in regard to their sympathies, vanities and beliefs. To suppose that dying changes a person's character and general moral aspect is a mistake. In fact the chances for improvements are far better for the living than for the dead.

Some ghosts lie, deceive, advise to ruin, drive people to suicide or the insane asylum and do other things which are bad for the living. In fact, they interfered so much that nature was compelled to evolve the living blind and deaf towards them, for which it be praised. If now the same dangers are to be reopened more fully, the teaching of nirvanaism is the best protection against them because for the knowing there are no dangers.

It is inevitable that a system of ethics will be connected with galomalism because a consistent thinker requires harmony between his natural and social philosophy. The principle of counter-forces, establishing equilibrium and happiness, must not be lost sight of. Egoism and altruism, analogous to the magnetic tendencies, exert the emotional energies, and individualism and socialism, analogous to cold and heat, are the economic forces in social conditions which should be brought to social equilibrium, or figuratively, to temperate social temperature in which humanity with its chemical life can prosper best.

Society is still too cold, too individualistic, a much higher degree of socialism is required to attain the proper social equilibrium. In order to socialize human affairs to a higher degree, the abolition of grafting capitalism with its wage-slavery for the majority of humanity, and the establishment of social operation in all economic matters is required. When the proper individuo-social equilibrium is reached, individualism and socialism (neither of which can ever be absolute because they are correlative) will be equilibrated to a condition which is neither the one nor the other but for which we have no term as yet.

And what about "the good and the bad?" They are relative concepts depending on the standpoint of interests of the judges. From our standpoint, everything that generally assists in the production of ghosts, especially human ghosts, is "good," and everything that is generally hurtful to this process is "bad."

XXVII. THE IMPERCEPTIBILITY OF GHOSTS.

Argon and the other dead substances without expressible forces are imperceptible. We knock against them with our

noses every day but had no inkling of their existence until lately when they were detected by a few experimenters who are believed as long as they report of unorganized dead stuff only and not of some individualized to ghosts, such as zeron.

Dead substance was discovered theoretically several years sooner than experimentally. In my little work "The Tail of the Earth," the discovery made in 1883 is mentioned in the following sentences: "That point where the galomal factors are fully equal in every respect, temperally and chemically, is the zero of nature for nature has here accomplished its object. The substance at the zero of nature is called "zeron."

"The complete zeron has not even any interior motion which could cause light, nor any other transant (prepond-erant) passive or active force which could be sensed by us; it is insensible, it is dead. By such zeron the so-called spirits are substantiated."

These sentences and others of the same meaning were published in 1887. In the year 1892 Ramsay discovered argon. This dead substance and the others of the "zero-group" that were discovered later, are inorganic zeron. Organic zeron, the ghost substance, differs from them in regard to its latent state; it is not gaseous but the resultant of the various other states, the solid, liquid and gaseous, equalized in organic life. Zeron is not a uniform or homogeneous chemical substance but a complicated highly organized composition of many nearly dead substances combined to an organism and groped around the dead point but not necessarily perfectly dead.

The term *zeron* is, therefore, not intended to signify a pure chemical substance but a whole group of substances near the condition of death, and especially that group which got there through the organic life process. Bodies consisting of zeronic substances I called *zeroids* in my first publications in order to avoid supernaturalism that has been connected with the term spirits. When I discovered that the term *ghost* is of empirical origin and independent of supernaturalism, I dropped the term zeroid because new words create difficulties, yet it has this advantage that it applies also to

vegetable and animal ghosts while the term "ghost" in its historical aspect applies only to the human.

In "The Tail of the Earth" is the following: "The insensibility ('supersensibility) of the ghosts has been the main cause for denying their existence. We can sense preponderant forces only while forces at equilibrium cannot express themselves on our senses. For this reason a substance at (dynamic) equilibrium is insensible, that is, not perceivable by our senses. The zeroids, (ghosts) consisting of such substance (zeron) are, therefore, without sufficient expressible force of either active or passive character to make themselves felt to us." There is but little to be added for those who understand chemically fixed dynamic equilibrium.

It is evident that forces which are neutralized in "stable equilibrium" of a substance cannot affect our senses. The principle of preponderant forces has been established as transantism, explained in the Appendix. It means that the further away from apolarity or the zero of dynamic preponderance the condition of a substance or a body, the stronger is its expressible force or its magnetic energy, for instance its weight. It is the preponderant forces and energies that exert themselves in nature while the others are dead.

Temperature, so easily transferable and perceived, affords an example. A temperate temperature of quiet air is imperceptible and it actually took humanity a long time to discover that the air is substantial, much longer than to establish the same fact with the haunting ghosts. If the air now is cooled, we begin to perceive its temperature as cold which increases as the cooling advances. It is the preponderant part of cold that affects us.

In regard to chemical conditions, we perceive the passive force prepondering in various substances as resistance and hardness, increasing with matero-polarity. We also feel chemical coldness. If heat is preponderant we easily feel it in temperature but not in the chemical conditions except as softness. It appears that our senses are limited to the perception of preponderant forces of sufficient strength, acting through variation of touch, and that at or near the point

of being neutralized in the interior of substances or in their general conditions near zeronity cannot be perceived by us.

Now the substances of the ghosts are the products of very thorough though not complete organic processes of equilibrations of their counter-forces. supplied from many if not all parts of anti-polarity. These organic substances of the zero-group, collectively called zeron, are sufficiently equilibrated, inactive, zeronic and without preponderant or transant forces of active or passive character that they cannot affect any of the polar, especially the matero-polar substances of our world of conditions and neither can they affect our senses which through a much required evolution were hardened against the little influences from the ghosts.

It is only when the ghosts are slightly materialized through borrowed substances and conditions, that we begin to perceive them, but really only that part which they have borrowed from the mediums. The ghosts themselves, being zeroids, we cannot feel, because they have no passive resistance to offer to our touch nor can we feel their temperature because they are temperated and have no cold nor heat that could affect us, nor can we see them because they are perfectly transparent and can neither intercept nor radiate any light, nor can we hear them because they have no force nor means to create perceptible sound, nor can we smell nor taste them because they have no chemical action strong enough for our hardened senses.

As far as our senses are concerned, the ghosts are not real. Those who know them are glad they are excluded from our reality.

Not the most delicate cardhouse can the ghosts knock over without medial help. Our most sensitive sense is that of the eyes. Seeing ghosts is more common than perceiving them otherwise, but this also is very limited and even with "clairvoyants" only takes place when some ghosts are slightly materialized. Neither can the "clairaudiants" hear ghosts without some materialisation of vocal organs or knocking hands or feet. Modern spiritism has shown all this plain enough.

Experience and theory, therefore, agree with my old sentence: *No manifestations of ghosts without mediumism.*

The evolution of the living in the direction of unmediality also had its effect in excluding the ghosts from our sphere of sensibility, as stated before. In regard to the influence of mediumism on progeneration and heredity I wrote in "The Tail of the Earth":

"Another reason why the people had to grow less and less sensitive to the influence of the zeroids is that whereever they perceived them by their senses, they were ashamed of their sexual and digestive instincts, of their "carnal mindedness," and entirely unnatural endeavors to suppress said instincts and "live a holy life" which would be pleasing to the omnipresent "holy angels from heaven" were the consequences."

Speaking then of the struggle of sensitives and converts to old spiritism against their own nature, we find: "These holy people died without descendants, but the less sensitive people performed their natural functions without paying attention to the ghosts, were prosperous and rich of children and they transmitted their insensitiveness to the next generation, this again in a higher degree to the next, and so on. This continual survival of the unholiest has resulted in all mankind being insensitive to ghostly influence (except some who become unusually sensitive through practice)."

"This process of 'evolution' has always resulted in the survival of the most unmediumistic and is the reason why the people today are fortunately so insensitive to the influence of the zeroids. The comparative weakness of the zeroids (ghosts) on the one hand and the organic adjustment of the living as to insensitiveness in this respect, on the other hand, are the combined causes for the zeroids being insensible to us. There is no other property of the living for which nature should be praised higher than for this. But it is also a good thing that there are enough sensitives left to serve for the practical demonstration of the existence of ghosts."

When I wrote the above many years ago, I felt like "praising nature" for the exclusion of the ghosts from our sense-realty, because I had experienced some very severe interferences of some ghosts with the life interests of some living persons through mediumism. Unfortunately, this hurtful interference is still a bad feature of mediumism.

We may consider the question if the ghosts are perceptible among themselves. In the seance room the ghosts have no difficulty to perceive each other as bodies, even when still imperceptible to us. But a fully materialized ghost does not perceive the ghosts that are not perceived by us. The ghosts have generally concluded that their stuffy and bodily existence is to be found only in the "material conditions" at the surface of the earth, but does not exist in their "heavenly homes." Over there they are purely "spiritual," consisting only of minds, as many of them say.

We have not been up there but can reach up there theoretically: Their senses when in heaven are no longer capable of perceiving their zeronic bodies, especially as these senses are also dead. But the liveliest part of them, or at least the most sensitive are their mental organs; they induce each other directly with the slightest feeling or thought. The ghosts say they have a manner of "transferring thoughts without speech," they also say they "think in groups" and form "spiritual bands." A thought produced by a member of such a band, by magnetic induction "runs through the whole band."

Young "earthbound" ghosts and such as have not been dead very long are still "somewhat material," but the ripe ghosts perceive each other mostly as mentalities and have generally concluded that in their normal condition they are but minds. It is possible that the doctrine of mentalism, this greatest of mistakes of humanity, was originally started by them and suggested to the living.

The mutual perception of the ghosts as stuffy bodies is limited and often obliterated which led to their believe that they are but "spirits or minds." The ghosts know but little about themselves.

XXIX. THE UNPRODUCTIVITY OF THE GHOSTS.

We now come to conclusions which are at variance with pretensions of ghosts and popular sentiments caused by them.

Those "higher beings," those "supernatural spirits" who are so near to "the almighty" that they act as his messengers, who claim to inspire and lead the stupid mortals and consider

them all as their mediums, those ghosts are the unproductive dead.

In the mythological writings of the Jews and Christians and still more in older scripture, the ghosts are repeatedly called the dead. Gradually there came that confusion when it was no longer known whether the ghosts or the corpses were the dead. When the existence of the ghosts was denied, the corpses remained as the dead. Such shiftings in the meanings of words there have been many.

The corpses are not dead but consist of lively substances which soon enter other bodies for their strife for nirvana; they simply have been left behind halfways. The "living and the dead" are the mortals and the ghosts. To die means to enter "the world of the dead." Death is the condition of soulpeace and rest, therefore, also of unproductiveness and inactivity.

We will best understand death when we understand life. The life of an individual organism begins with the energetic combination of the male and female generative substances of active antipolarity. Forming a new cell of life, it has become an individual, immediately continuing life through nourishment from the mother. If killed before born, the ghost of the child lives on and becomes a full grown person overthere. Women have been put to shame in seance rooms through hearing of their "nameless children" of abortion.

When born, the individual begins eating, etc., as a continuation of the act of its generation. It enters the liveliest time of life, the restless childhood, and when through with it, quiets down to maturity. Sexual productiveness and labor now take the place of play and study. The abilities of men are highest when they not only have to maintain their own lives but also raise their children. When the family is well advanced the parents pass the culmination of their abilities.

With the further advance of ripeness of their own interior bodies for the production of which the whole difficult life process takes place, the productivity of men diminishes, first the sexual, then the muscular and finally the mental part of it, the latter being developed to lead the others. There is no natural necessity for much productivity any

longer, and as nature acts by necessity only and as this necessity means equilibration of the counterforces, it wastes no forces with a ripe individual whose very ripeness if understood as apolarity excludes the possession of strong exertive forces and energies. We know how unproductive the old man becomes also mentally.

The ghosts now as equilibrated beings are very unproductive, mentally as well as otherwise, far more so than the oldest dotard we can imagine. But as the old man when he is healthy feels like he could still advise and guide his boys in their business if they would only let him, so the ghosts are immensely overrating their abilities and believe to be our inspirators, guides and guardians, while in reality their influence on our world is about equal to null. Only when through mediumism they get a chance to gain strength and interfere in our life, they will advise, prophesy and prescribe, but it is a dangerous advice that has led many people in America to financial, physical, and even moral ruin.

The extravagant pretensions of the ghosts as "the higher spirits," while showing their splendid well-being, do not change the fact that not one new idea of scientific importance has come from them. In 1888, the author offered a prize to the New York spiritualists for the establishment of one fact where a new scientific idea which had not been produced in our life had come from the "spirits." He has his money yet.

The "inspirators" have trouble enough to "inspire" the living with the simple fact of their existence, they cannot even do that. The communications of the ghosts show that intellectual emptiness so peculiar to the talk of mentally unproductive people. It is for this reason that I say, of all the classes of mediumism animation is least valuable because it tells nothing of the ghosts substance and being.

The leading "psychical researchers," men of exceptional ability and integrity—how much have they obtained through "psychic mediumship"? Hardly enough to convince some of them of what is called "the spiritistic hypothesis." Much more is gained by experimenters in materialisation and spiritualisation. The facts the psychical researchers collect show the nirvanal condition of the ghosts. Enough talk and answers of the ghosts through mediums has been printed to

from a good meal theory but it is all "earthly stuff" that could have been produced by living people even if in origin from the ghosts is a fact.

Totally the impossibility of confirmation is blamed for this condition, but of the general conception none have yet doubted that the spirits are of a "formative and successful consciousness." It is not required to suppose any observability at all with the ghosts as we understand that they are the kind whose comprehensive sensitive shows itself when coming in contact with the living who expect them to act like the living.

What do we expect of the dead? All life, including the animal, is regarded of the living, because all life is striving for survival; where it is resisted, there is no need for further life and no ability either. Let us remember that the manifestation of energetic conditions is the requirement for action. In the matter given as more and complementary ways could enable him to produce undoubtedly or in any other way.

It is generally conceded that the ghosts have no sexual relationships. All the ghosts have been registered in our life where. It is natural and can best testified to by young ghosts that have who are still at the age of sexual productiveness have their own affairs, but I remain in no relations. We understand love as exception in general for the young ghosts. They develop through feeling who, parallel to the living, they as the spirit of our dead, which caused the sacrifice), they partake of "the ghost" of our drinks, especially the male ghosts who are revelling our harvests as they return, they grow and have as the living and have a life that may be interesting enough, especially as our ideas supply them too, but it is not nearly as intense as our life.

The young ghosts would rather be here to carry out their ambitions. Former revolvers look them due to the fulfillment of normal, but it is not be satisfied way. With all our egoism and projection we are developed for life our social life to struggle for happiness right here, we, therefore, do not want to quit the struggle and instinctively object to an eternally passing over and pity those who miss the young, because they miss an interesting life of success and delights.

But the dead are ghosts in an active proficiency and complain of no weakness they are all "very busy," especially with "inspiring the living." It would amount to the same if they would save their troubles because they are "inspired" when they believe to be inspiring, as mentioned in the seventh article. But as long as they cannot interfere with the affairs of the living through mediums, so long is their tremendous expenditure of mental labour to that plan of remedies of which it is said that if they do not help they can not either.

The actual influence of the dead would on the living is so small that if the ghosts would not exist anymore whatever, the living would not notice the difference, except that a few mediums would wonder why they lost their controlling.

The notion of time is our abstraction of the progress of action. Our feeling of the passing of time is dependent on activity. The more intensive action and life the longer appears time. To a lively child a day is as long as to an old person a week.

Where there is no action there is no time. If the world would be annihilated and nature stand, "the end of time" would be reached, because there would be no further progress of action of which time is our abstraction. This applies to the absence of weariness of the superintuitive ghosts. To a Greek ghost, according to his testimony, the more than 2000 years that he is dead do not appear as long as the 60 years that he was living and of which he remembers more than of all those centuries. The living old man also remembers more of the experiences of a year of the most active part of his life, than of a year in old age. Time lasts full.

Every change in an organism, every exertion and labor requires exchange of equalizing substance. Self-evident, therefore, requires resting and in that account the troubles of life. But the old ghosts are about through with the trouble, they change but very little. The many of them can speak many languages and show otherwise that they follow the progress of our world which surely goes slow enough even for the dead. But the ghosts are not dead of or because all new ideas are produced in the living world and not in the dead and unproductive. Superintuitism will in

ignorance of the requirements for action reversed this matter and caused the living and the dead to believe that the latter are "the higher beings." The misery this mistaken belief has caused and is still causing makes public control of mediumship desirable to protect the ignorant and naive.

XXX. THE HAPPINESS OF THE GHOSTS.

Those who now believe that the unproductive ghosts are to be pitied are very much mistaken. On the contrary, we should rejoice with them that they attained their condition. What do we really want? Happiness, of course. Equilibrium is happiness!

The goal of all our strife and labor is not a capacity or ability but a condition. We want to be satisfied and happy. The abilities of organisms, including the mental, were developed in the struggle for happiness and naturally they terminate where lasting happiness is attained.

Will lasting happiness be reached in nirvana? The unanimous answer from there is "Yes." Everybody knows whether he is happy or not, even if he otherwise does not know much about his existence.

An individual is happy when not only his necessities but also his wishes are satisfied. In our life this condition cannot be attained even under the most favorable circumstances. Discontent, desiring, wishing, striving for something are tendencies given us through evolution and having a great object in our lives. But they all hope to become happy at some time; they all will become happy in death. The "heavenly blessedness" and lasting happiness of the ghosts is no mistake. Contradicting as the statements of manifesting ghosts may be otherwise, they all agree on this one point, that in their world exists a highly gratifying and completely happy condition and that the older ghosts have reached it.

If still wanting something, if still ambitious to do something, if still but wishing for something pertaining to its own requirements, the individual's happiness is not perfect, but when the individual is consciously satisfied and wishless, then happiness is there.

If according to Kant, happiness consists in the accord-

dance between that what happens to a conscious being and the purpose of its existence and essential motives of its desires and wishes, then happiness is at the goal and object of all endeavors where the purpose of existence is fulfilled, where an organized piece of the world-stuff has attained dynamic equilibrium.

That heavenly happiness means the final and lasting condition of individual satisfaction, interior peace, "soul peace," perfect tranquility and such a stability that no further needs, desires, pains, passions, etc., can disturb the rest, inactivity and wishlessness which are the requirements of nirvanal happiness. Rest exists only as equilibrium; dynamic equilibrium alone is soulpeace, etc.; without it there is no satisfaction and happiness, but life and strife.

Since sentimentality plays its part even in the acceptation of scientific truth, I must more than make up for the previous article by still dealing a little longer with the happiness of the ghosts which cannot be overstated. Not the laboring and struggling individual is happy, but the one who has all he wants, who is through with the difficulties of life and whose soul is now at rest. The world's mother-father strives through nature for equilibrium and happiness in itself; it finds it in nirvana where materity and paterity are at even strength. Burning life is not happiness but it leads to it and terminates at it.

The prehistoric people of Asia already concluded from their intercourses with ghosts, that nirvana is the possibly highest degree of happiness. It is not a moral process that leads to it, but a physical and above all a chemical process; the moral endeavors though are a part of nature.

To Buddha is attributed the following sentence: "Suffice it to know that nirvana keeps from danger, grants security without fear and gives happiness." This explanation is not just scientifical but it agrees so fully with what the ghosts say of their existence that it is likely it originally came from them and Buddha, if he lived, was but a transmitter.

In nirvana the raging process of nature, our laborous life with all its troubles and dangers is at its end, wherefore the ghosts are out of danger and "kept from danger"

of being disturbed in their existence and peace; in nirvana the "security without fear" is established, because nothing more can happen of any account; nirvana, therefore, gives lasting happiness.

The hell of the people in the hot zone is "very hot," transferred by Christianity also to the Germanic people of the mild zone; the hell of the Esquimos and Canadian Indians is "very cold," but heaven is temperate in its chemical condition as well as in temperature.

The durability and lasting existence of the ghosts, which they so fondly call "eternal life," is also founded in their dynamic equilibrium. Even with mechanical equilibrium it is evident that it cannot be overcome from within but only by disturbance from the outside. But chemically fixed dynamic equilibrium, such as represented by argon or helium, is undisturbable. Zeron, the ghost substance, for the same reason is about inaffectable, though slight changes in limited ranges take place which gradually in the length of time will amount to something. I am speaking of mature or ripe ghosts. Yet there is not only their substance, but also their organism or individuality to be considered. It would be unscientific to say that it is indistructible, because it is not entity but property. As a matter of fact, ghosts have been destroyed when insulated in glass cabinets or otherwise in the power of a mortal who was in a fight with them.

Against chemical influences of poisonous gases the ghosts afford great inaffectibility on account of their chemical indifference, but against mechanical action, when cornered, they have as good as no resistance. Extreme thermal influences are dangerous to them. Perhaps the spirit of our heavely father, the breath of the sungod which generated the ghost-world, will, after a small eternity of individualized existence of the ghosts some time destroy that existence in case the earth advances too near the sun. But that does not bother us for the present.

Many ghosts are cripples but were crippled in their lifetime, many suffer from diseases, which killed them. That which can be injured can also be destroyed, because destruction is simply complete injury. That which grows can be healed. There are ghosts-doctors over there. The ripe

ghosts are never sick, but they are the only ones that are completely happy.

Through the new theory of ghosts, combined with new experiments directed by it, considerable knowledge of the ghosts has been gained, while those working with the mentalistic theory gained but little that helped their understanding of the ghosts. The difference lies in the working theories. The nirvanalogist experiments on a different basis, with different views, for different purposes than the others and, therefore, finds different things which the others never thought of. Such is the influence of a true theory.

Applying nirvanaism to the ghosts was always found fitting and pragmatic, and facts which have been very uncomfortable to the "spiritualists" and caused a great deal of unfair blame on the mediums, just suited us. I defy the spiritualists to state one fact, only one established fact (no phrase) which is not fully in harmony with nirvanaism.

I know, of course, that some pretensions of some "manifesting spirits" are opposing it, but that makes no difference. The ghosts know but little about themselves and are too dead to explore their own condition, but they do not feel like being dead and often consider themselves much more alive than the living. It is their fine and happy well being that makes them feel so. If they were not dead they would not be happy.

"Spirit evidences" when expressing theoretical opinions, no matter what names may be connected with them, cannot be accepted as arguments for or against nirvanaism. I have obtained much favorable evidence with names to it that belong to the greatest, and always against the views of the mediums who trasnmitted them, but I make no argumentative use of it. Nirvanaism must stand by itself and for itself no matter what the ghosts say about it.

The disproof of galom as the essence of the world and all it involves, is the only disproof of galomalism including nirvanaism. Even if in detailed deductions I have made some errors, it does not affect the truth of the philosophy as a whole.

XXXI. THE LOCATION OF THE GHOST-WORLD.

The "seven spheres" in the world of ghosts, which could as well be made seventy spheres, because the division is arbitrary and has probably been derived from number-mysticism, are caused by different degrees of "spirituality" of the ghosts, as the spiritualists say and to which we agree if they will agree with us that *spirituality* is a symbolical name for *specific heat.*

Inversely proportional to this heat is the "materiality," specific cold or materity of anything that exists. The unripe ghosts have a greater materity than the old, they are, therefore, attracted stronger by the earth. The greater their specific weight, the lower the layer of the atmosphere or "the sphere" where they are at home. But the older and riper a ghost the lighter is it and higher dwells it until finally at about the age of 150 years the human ghosts arrive in "the seventh heaven," the highest region, where the great mass of old ghosts are enjoying their actionless and worriless existence, where death and happiness are prevailing.

Ghosts of children and young people are still "earth-bound" which means that gravity keeps them at or near the surface of the earth, in our dwellings, schools, restaurants, theatres and wherever they like to be to live a life parallel to ours. It is the ghosts below 100 years of age who commit the mediumistic demonstrations, while the old ripe or fully matured ghosts seldom find the strength for it; being "too spiritual and high" to come down and woold in our "low matter," they leave it to "the lower spirits." If we take "high and low" in the mathematical sense instead of the "spiritual," then everything fits. The "higher spirits" are too light and weak for earthly operations and seldom come, while "the lower spirits," being the younger, stronger and heavier ghosts, play the apparitions.

The ghosts are dead in different degrees, we may say, dead, deader and deadest, the last being "the highest." Complete death, such as shown by argon when left alone, there seems not to be with the ghosts, probably because the substance of them is a complex of chemical substances which never reach chemical zeronity completely. A little exchange

of substance and a little life, pendulating over the dead point, seems still to be there.

The spheres in the ghost-world are layers of vegetable, animal and human ghosts and ghost-substances which with their weights float in certain layers of the earth's atmosphere. The human ghosts clothe themselves in vegetable ghost substances and build their homes of them. The ghosts say, it is extremely comfortable and very beautiful up there, and we have no reasons to doubt it.

It requires explanation only for those who still believe in "moral realities" that ethical questions or moral concept, such as "the good and the bad," which are limited to the affairs of society, have nothing to do with the gradual rise to the seventh heaven. It is purely a chemical process that leads up to heaven. The "bad man" also gets to heaven when his time is up without requiring to become that which people with other interests call "a good man." Anyone who has no other reason or motive "to be good" but fear of hell may well be bad, because he will get to heaven whether he tries it or not. Nature is no church and condemns nobody, on the contrary it saves all men from the hells of which we have on earth not only the cold and hot variaties but also several others.

To determine the location of the ghost-world relatively to the earth was the object of extensive experiments in the year 1885. Before that time, the ghosts told only the following: *Their heavenly homes are above the clouds, arranged in spheres. .Summers and winters, days and nights are not overthere.*

Similar statements are abundant in communications of ghosts but always with that same vagueness. There are also some statements regarding "travels to the stars," but no ghost who believed in them had been there himself. This conflicts with the general testimony regarding the spheres to the earth, because if the ghosts are held in spheres, they cannot freely fly about among the stars. On the other hand if the ghosts are "spirits" they cannot have weight and need not be limited to spheres to the earth, but can travel freely. Here is a case where nirvanaism agrees and spiritualism

disagrees with "spirit testimony" so much valued by the spiritualists.

Those experiments in regard to the location of the homes of ghosts made the results independent of the mental conditions and views of myself, the mediums and ghosts. I was simply measuring the time it took the ghosts to go from New York to their homes and back. A private medium who did not know the purpose served to note the start and finish of each trip. Several of the ghosts who took part in the experiments afterwards testified at other mediums in regard to them, especially when materialized.

After lots of trouble and patience the following general points were gained: The up and down trips of the young ghosts were shorter than of the older; according to their explanation because they did not dwell so high, though all dwelled "above the clouds." Starting at 7 P. M., the different ages made the following times: 20 years, 17½; 38 years, 19; 58 years, 25½, 80 years, 30 minutes. Old ripe ghosts made their trips in from 40 to 50 minutes.

The second important point gained was that the nearer to midnight the ghosts made their trips the shorter time it took them. A ripe ghost made his trips a number of times with the same results. We will call him G. He testified to the following figures being correct when he was splendidly materialized at another medium: At 8 P. M. 45 minutes in the average; at 12 o'clock at night, 22 minutes, and at 4 A. M., 32 minutes.

With these figures the longitudinal location of G's heavenly home can be constructed; it is done in the Appendix. G's home is so located that below it on earth it is always 1 o'clock at night, yet he complains of no darkness.

The results of our experiments plainly show that *the ghost-world is in the shadow of the earth,* opposite the sun. It takes no part in the rotation of the earth but keeps alongside of it in its revolution around the sun. Apparently the sun repulses it, therefore, it takes the same relative position as the tail of a comet with which it has a few features in common. (A 14).

Quite pleased with the results of these experiments, the author gave an account of them in "The Tail of the Earth,"

published in 1887. But the people were not ready then to take an interest in such "physical" treatment of the "spirit-world." Is it better now?

The astronomical position of the ghostly tail of the earth, probably not extending beyond the shadow, confirms the testimony of the ghosts that there are "no summers and winters, no days and nights" in that world. It also confirms the inherited notion of the Greeks that the Elysium, that "happy land not tried by sun nor cold nor rain" was located in the far west, opposite to the rise of the sun, and finally below the earth at daytime. Thornato, a very old god, was the personification of the night and of death both, completely connecting them. In old Germanic mythology "the twilight" of the gods (in German: "Goetter Daemmerung") also indicates the location of the ghosts world in the shadow. Hades, shades and shadow are in etymological connection; shades meaning ghosts. The "seventh heaven" where the old ghosts are, is of ever-mild imperceptile temperature. This conflicts with the materialistic speculation of "the absolute zero of heat beyond the atmospheres." There is no such beyond nor zero. The coldness of our atmosphere increases to a height that has been reached by balloons with self-registering thermometers. At about 10 miles up between the tropo-sphere and stratop-shere the atmosphere is coldest, from there upwards it becomes warmer. (A 15). On an average the world is of a mild temperature. The ghosts are located high enough to be comfortable.

XXXII. THE LIVING AND THE DEAD.

After having now been introduced to the ghosts theoretically through the gates of naturalism, instead of being shut off from them by the impenetrable walls of dark supernaturalism, the living readers who have not seen ghosts would surely like to make their personal acquaintance. Mediumism being the only way for the ghosts to enter our world of sensibility, the places to meet ghosts are the seance rooms.

There is no harm in meeting the ghosts as long as they are not allowed to interfere with the affairs of the living

by "spirit-advise" or otherwise. The ghosts do not exist to do something for us but they exist for their own purpose which is to be happy.

So much has been said about fraudulent mediums. There are mediums, especially in the psychic class, who help along the manifestations by fraud, but it is not this class I recommend the readers to go to. But little real evidence of the existence of ghosts and no gleam of their personality have been gained through it. It is the so-called "physical manifestations," materialisation and spiritualisation, much neglected by the spiritualists, where the most positive proofs of genuineness can be obtained and were fraud is difficult and unprofitable.

It is utterly unscientific to cry fraud in any case before having considered all the possibilities of mediumism and the tricks of hostile ghosts. Not all ghosts who operate against spiritism do it in the interest of clerical haughtiness, but some consider mediumism a great sin against "the laws of God." The similarity of the manifestations with the mediums and the necessary cooperation of the mediums in the manifestations have also been the cause of much suspicion and injustice; but all that will change when the nature of mediumism will be better understood.

Extensive experiences in the seance rooms have shown what imperfect beings the ghosts are intellectually and morally when judged as if they were living. But it is unscientific to reject the whole matter, because the ghosts do not come up to unjustified expectations. It is true that monarchs, cardinals and other actors continue to play their parts of vanity overthere; it is also true that the masses of ghosts are imposed upon by them. The foolishness of our world finds its continuation in the ghost-world.

But there is no economic slavery overthere, which is the greatest curse in the world of the living making life a burden to more than half of humanity. Those who are mentally free can be completely free overthere. Our world supplies the ghosts with the required food for their development, but it costs us nothing, not any more since the ghosts ceased to be guests to sacrifices.

As a whole the world of the living is further advanced

than the world of the dead, for the same reason that the men now 40 years old are further advanced than those 80 years old. The progress of humanity is made evolutionary or from generation to generation in the world of the living. It is to be hoped that "modern nirvanaism" will prevent most of the misery which misunderstanding of the relations between the two worlds and "spirit-advice" are apt to cause. "Guides" are ghosts who keep near a certain living person, are induced magnetically by that person's reason and mental activity, make the mistake of taking these induced thought, feelings, etc., for their productions and inspirations to the living, and then come and claim authorship of the works of the living. It goes so far that ghosts have claimed "spirit-parentage" of persons, whose parents still lived. It would be laughable if it did not do so much harm.

It will now be understood why the ghosts cannot effect perceptible manifestations without mediumism. A body of nearly apolar substances cannot enter polarity by itself; it would mean to reverse nature as the process of equalizing antipolarities, having only the one direction to apolarity. The medialum, extracted from a medium, is a composition of half-ripe substances which are commonly interwoven with the harder substances of the medium and form a body of the same form and organisation. The ghost pentrates and holds it and uses it for his manifestations, as explained in previous articles in accordance with nirvanaism.

Since the world is hermaphroditical throughout and inequilibrity of hermaphroditism the cause and equilibration thereof the object of nature, it may now be apparent why the sexuality of mediums is of importance. The sexes are antipolar hermaphrodites, especially in their generative substances; the further away from the point of sexual equilibrium the stronger are they as men or women and the less can they be affected by apolar ghosts.

Very feminine women have such strong passive force that they are not perceptibly mediumistic, but women with a high degree of masculinity in their nature and character are weaker in respect of passivity and can be controlled by the ghosts if willingly and quietly submitting to such control.

The investigation of mediums has been limited, because

the spiritualists took no part in it, their theory not calling for it. But they must admit that women, (strong and manlike) are the best materializing mediums and ghosts of women the best materializers; on the other hand, that men are the best spiritualizing mediums. I can add that these male mediums are very feminine in their natures, which was the case with everyone that was investigated.

For the same reason that organic life, being mostly chemical life, requires equilibrated temperature, does mediumism require equilibrated sexuality and neutralized magnetism, the latter generally effected by singing of the sitters. It is a known fact that the best seances are those where the sitters consist of about equal numbers of men and women.

The effect of light and heat on materialisation and the requirement of dark cabinets and dim seance rooms is now also understood. Light acts "spiritualizingly," and radiance forces heat into the medialum and makes it impossible for the ghosts to condense and cool it to a visible state. Radiated light, therefore, opposes materialization which fully agrees with experience, but for which the spiritualists have no explanation on the ground of their theory.

If the ghosts were "bodiless spirits of mind" why should there be cripples among them and others who show the signs of the diseases that killed them? But if they are, as explained by nirvanalogy, then all these experiences are natural possibilities, including the destruction of ghosts.

"Reactionless substances" are indifferent to chemical action, neither can the ghost substance be much affected by poison, though this is not completely so. Those who have sufficient reason to commit suicide should do it by inhaling gas, because it seems to injure the ghosts least. But the only right way to die is from old age; every other way is hurtful.

Injuries from burning and mechanical action also injure the ghosts of persons. If a leg is amputated in this life, it will be missing in the ghost-existence, where though it is not needed for floating in the air. Nirvanaism gives sound reasons for healthy, careful and sensible ways of living and why the lifes of the people should not be hampered with by careless industries, capital punishment, war and other forms

of murder, and also why society should be so organized especially in its esonomic affairs, to give every individual the opportunity to fulfill his or her life in the best manner.

An explanation of the facts of "spiritism" was impossible with the spiritualistic or mentalistic theory. Nirvanaism can explain every fact of that kind "on natural grounds." The scientists who conviniently objected to the whole matter as being fictitious supernaturalism have no more excuse for keeping at a distance from this matter, unless they are wage-slaves at an American university with private endowments controlled by religious influences.

There is perfect harmony between the facts of the visible world and those of the ghost world; they belong together to the same galomal world and are related to each other as cause and effect or as process and result.

Before concluding these articles I wish to call once more attention to the feature of nirvanaism that psychology plays but a small part in it. The mentalistic hypothesis of the late period of antiquity and the dark ages reaching with their shadows into the twentieth century, is completely discarded and psychology reduced to a branch of physiology. The ghosts being substantial or stuffy bodies and no "spirits," their investigation is no problem of psychology in the old sense of the term, but of physiology and nirvanology supported by chemistry and physics. Nirvanaism is again submitted to independent thinkers.

APPENDICES

For readers who require more detailed and often mathematical proofs of important points in the articles than given in them, I append some of the articles with scientific demonstrations of the truth of the assertions made there where such matters would have interfered with popular reading. I also add some theories consistent with the established principle.

App. to Art. I: The Importance of a Theory.

(A 1). The "theory of knowledge" (cognition-theory) of supernaturalists, dualists and sceptical critics of the speculative philosophies, became a disease to philosophy which impaired it so that it was unable to continue its work and fulfill its object. In the dualism of "mind and matter" mind is a supernatural entity which is capable of connecting with matter only through the mechanical concepts of space and time which in that case are "a priori" possessions of mind. The conclusion this leads to is that the mind of man can know "phenomena" or mental pictures of things only, but never the things-in-themselves, the existence of which even he cannot be sure of.

Instead of philosophizing, explaining the world, the "Professors of Philosophy" keep on wrangling over the question how cognition and philosophy are possible, while science which slipped away from them, goes its own ways to facts, explanations and knowledge.

Galomalism, accepting the position of modern physiology that minding is the physical activity of brains, requires no elaborate "cognition-theory"; it is all contained in the one sentence: Subject, object—all of the same world-stuff. In German I have expressed it more poetically by saying: Subjekt, Objekt, alles eine Wichse.

"Phenomena" in the sense of the cognition-theory of speculative philosophy do not at all exist; that which has been

called so, the sensual perceptions are physical actions in the world-stuff causing corresponding physical processes in our brains which in combination with former such actions and impressions form perceptions and recognitions of the things themselves and, when properly combined and worked in thinking, also of the things in themselves. The impenetrable curtain of "phenomena" between subject and object was drawn there by people who did not know the nature of light and sound.

If light and sound were mere "phenomena" the photographic plate and phonographic roll would also have phenomena. But since they are pulsatory actions, the color or tone of them can be determined by physicists without seeing or hearing them, simply by counting the pulsations per second. And so are all other "phenomena," including those in brains, physical processes of similar nature. They are real and actual, transmitted through air and nerves to brains where they enter the physical action of comparative recognition called consciousness, if such is ready to receive them.

The "naive realism" of the men whose healthy common sense is not spoiled through the study of that poisonous nonsense called "speculative philosophy," is the only true and useful way of perceiving the world. Subject and object consist of the same stuff with the same essence and forces, and are, therefore, no essential strangers of which the latter could never be known by the former. A man's mind, if prepared, can perceive and understand all about being, reality, nature and death, which is all we want to know, there being nothing else.

App. to Art. IX: The Essence of Stuff.

(A 2). To elaborate the proof of galom as the essence of the world-stuff, we will study with a simple experiment what remains constant in stuff under all possible influences on the same. The fundamental importance of this matter is emphasized by the offer of a reward for a disproof, showing that galom is not what is claimed for it.

If the proof of galom stands, which it does, then galomalism, including nirvanaism, is the first philosophy which is not based on a hypothesis, but on a scientific fact.

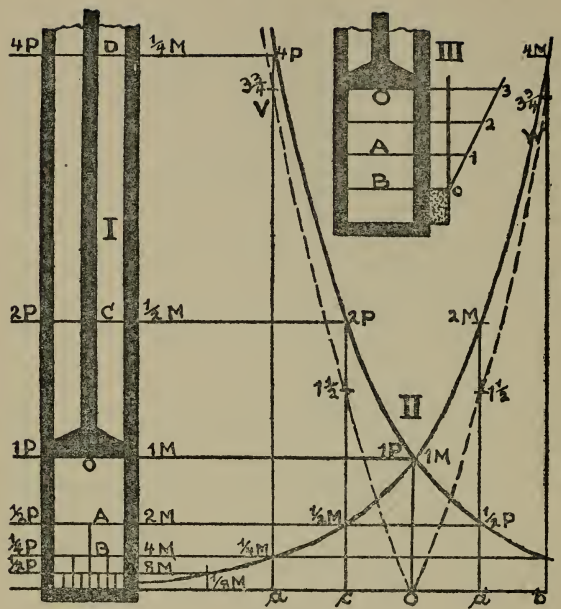

Fig. 1.

Part 1, Fig. 1, shows a cylinder with a bottom and a close piston. The air under the piston is a body, being a certain quantity of substance which in a certain condition is of a certain volume. When the piston is at *O*, as shown, it exerts neither pressure nor suction on the airbody and there is equilibrium between the inner and outer air. We call this point our zero *O* and suppose that here the counterforces of our airbody, paterity, P, and materity, M, are equal and units as if the air were consisting of argon or zeron.

We now press the piston down to A, thereby reducing the volume of the airbody by half. What has happened within this body? The entire quantity of the passive force, materity, is still there because on account of its passivity it had to stay. Being pressed into half the former volume it is now twice as strong as before, therefore equal to 2M. The

active expanding force, heat, paterity, had to partly get out and exert itself in expanding the outer world to keep space filled when the piston moves. But this force does not "blow like ether wind through the molecules of the enclosure" as the dualists conceive it, but takes the form of temperal heat, warming and expanding the surroundings to the same extent as the airbody was reduced.

We have here a new notion of heat. First heat was perceived by the spiritualists as a stuff, heatstuff, spiritus, ether, afterwards heat was perceived by the materialists as a property of matter, atomic vibration, molecular motion, and now it is explained neither as stuff nor as property or motion but as the active essential factor of the essence of stuff without which there can be no extension and stuff. It is always representing the expansion of a certain amount of substance. Through being the wandering force which attends to the equalizations of conditions, it becomes the active force in nature.

The entire original amount of the heat of our airbody in the condition at A is halved because the extension or volume is halved and it is halved again, because the cold is doubled. It is, therefore, but one-quarter of the amount at 0, and since it is, so to speak, distributed in half the former volume, it is averagely or by strength now ½P. This is not only logical, but also positively demonstrated by experimental science.

It may help those who are used to mechanical conceptions if we put compressibility for heat and expansibility for cold and now say that after compressing the body into half the former space, the compressibility (heat) has diminished by half and the expansibility (cold) has increased by two. Through this first and simple step in our experiment the stuff was compelled to expose its essence which is not such a mystery as pictured by some philosophers.

We press the piston down to B. Materity again has doubled and become 4M and paterity has halved and become ¼P. Everything said above about the action from *O* to *A* also fits for the action from *A to B* and for every following steps reducing the volume of the air body by half. At C we get 8M and ⅛P. If we could press hard enough to carry

this action into infinity, the cold or materity of the airbody would become infinitely strong and the heat or paterity infinitely weak, but both would always be there and neither would ever be omnipotent nor impotent, neither would ever be absolute. Pure force is a mistake and so are all force-stuffs, such as matter and spirit, mistakes.

Forces exist only in the juxtaposition which we in an inductive manner create for them, but as far as being is concerned, there are no forces at all, only stuff which behaves in a certain manner. The "absolute zero of heat," so much needed to obtain pure coldstuff or matter, is excluded in our experiment. Heat may logically become infinitely weak but it can never become null because it is an essential factor of being. The absolute zero of heat is at the bottom of our tube; in order to get there, the piston must first annihilate the airbody, but the passive force serves the stuff to prevent annihilation.

If we let the piston jump back to *O* and now pull it up to *C* we double the original volume of the body and gain ½M and 2P for the forces which at D change to ¼M and 4P. The passive force, materity, is always inversely and paterity always directly proportional to the volume of the body, even when the expansion has been carried to the creation of a "vacuum" which is a delusion.

The substance of our airbody is constant, because when referred to a certain condition, say to that at *O*, it is of a certain volume; the notion of substance is the compound of stuff and condition. But the mass of stuff of this airbody changes because it is independent of conditions, being simply the space-filling being, always proportional to volume which is it proper measure. If it were not so, empty space would be possible.

The world-stuff, filling space completely, is continuous, indivisible and incompressible; only the passive force of it can be pressed into a smaller volume and, thereby, strengthened, because it is not absolute. The mistake of materialism consists in taking the passive force of stuff, materity, for the absolute essence of stuff which then becomes matter. If it existed, our experiment would be impossible.

But our experiment, being a wrongly interpreted fact of

experimental science, proves the impossibility of absolute cold or matter as well as of absolute heat, spiritus and ether. It simply disproves the extremistic philosophies.

Part 2 of Fig. 1 illustrates the result of our experiment. The equal grades on the axis *a b* represent equal grades of action. The curves for M and P represent by their deviations from the axis the opposite variations of the forces of the airbody during action. The planes of these variations are called *vaxants* and a pair of them *the contravaxant.*

If we multiply the two ordinates on any point of the axis of the contravaxant, we gain a constant product. It being the constant product of the counter-forces, it represents galom, the constant essence of stuff. Through the entire changing volume of our airbody, this force product is always the same, no matter if pressure or suction is affecting the body. *Galom is constant in space and time.*

Boyle's law of the inverse proportionality of pressure and volume in the above experiment is practically the same as the above induction, only that it is not applied to the forces of the airbody where its philosophical importance is lying. It did not influence philosophy for this reason.

The graphical representation of this law by official science, resulting in a rectangular hyperbola, takes distances along the axis of abscissas which represent volumes. In other words its unit is one of space not of action, it is a mechanical representation which does not illustrate the force-relations.

It is action that is to be represented, therefore, I have taken a unit of action or "momentum," the product of pressure times traversed space, as the unit on the axis. Everytime we half the volume of the airbody, we have a unit of action, momentum and time. In the uniform progress of action the forces increase and decrease inversely proportional.

Part III of Fig 1 shows the position of materialism towards our experiment. The enclosed airbody now consists of say one part of material atoms and three parts of empty space or ether, which makes no difference because ether per hypothesis is resistless. The experiment applies to monism and dualism both.

If we now press the piston down to A two parts of the

resistless escape or two parts of empty space are gone. If we press the piston to B all is gone but the atoms, which are now packed together solidly. Since absolute resistance is the essence of matter, we cannot compress this clump of pure matter any further. Even the "almighty" with his absolute activity could not influence this body in that direction, because here he is up against the almighty passivity of his counterpart.

Whether heat is explained as motion or stuff, it is plain that at this point, materialism and dualism have no more of it. At B is the absolute zero of heat, here is matter without heat or active force of any kind. Yet this is not the absolute zero of heat of physics which is at the zero of stuff. At the materialistic zero of heat the passive force is an absolutum, as required in order to be the essence of matter.

If this extreme of absolute cold and the opposite extreme of absolute heat do not exist, then the extremistic philosophies of materialism, spiritualism, energism and dualism, whose absolutes are such extremes, are all untrue, which in fact they are. And if there is no zero of force, such as the zero of heat in Part III, required for the mechanical "known laws of nature," then the mechanical theory of nature is not true—and there may still be ghosts.

If we return to Part I we observe that the temperature of our airbody was supposed to be constant. In reality the body is heated in its temperature by part of the heat of its latent condition that had to transform and transmit. The general condition of the body is bound or latent by the enclosure. In the "aggregate states" or latentures and in the chemical conditions forming substances, this boundness is effected by interior tension in constitution. If our airbody becomes a liquid, internal tension takes the place of external pressure which does not change the law.

Experimental science shows that in our experiment we can substitute "thermal" (rather temperal) action for mechanical action. Heating of our airbody to 2P drives the piston up to *C* or cooling to 2M down to A. We have here the same proportions between the forces and the volumes as before, a matter which I need not demonstrate here be-

cause it is accepted by science. No thermal action of any kind can change the inverse proportionality of the counter-forces and the constancy of their product, galom. It is important that in both the above cases of action, it is the same galom which remains unaffected and constant.

In Art. IX are stated the laws of the constancy of the forceproduct in the chemical condition and in electricity. There is no need for demonstrating these two empirical laws here, because they are standing properties of science. In regard to the chemical constant, irregularities appear in experimental and estimated results, because both are made on the supposition that weight is the one factor. It is not the full factor of materity and all calculated weights in the list of "atomic heats" are wrong for reasons given in connection with the law of equalization.

I have now established the fact that in all mechanical and thermal actions stuff shows a constant product of the counter-forces; we also know that in all chemical and electrical actions such a constant is found. It is required to show that the constant is the same in all these actions and conditions. The energeticists have done nice work in this direction by demonstrating the transformation of heat from one form into another. Heat is always the same force whether it has the loose form of heat in temperature or of "negative electricity," or whether it has the latent forms in the chemical and latent conditions. The opposite force to heat has shown the same transformations which I need prove.

The energeticists cannot object to the conclusion that the transformable forces are either of the same essence or belong to the same essence which is not affected by the transformations. This known possibility of transforming the active and passive forces in the various conditions furnishes the empirical proof for the identity of the forces and their product, galom.

(A 3). There is no empirical proof as yet of the constancy of the forceproduct in those latent conditions which the materialists call "the aggregate states," namely the solid, liquid and aëriform and the various latentures within these three classes. By analogy it can be proven: Every latent condition is also a chemical condition; carbon for instance has

seventeen of them. In each of these latent conditions carbon is a distinct chemical substance entering into chemical equalizations with its own proportion of forces by which the "multiple proportions" in the so-called combinations are effected.

If we compare ozone with phosphor, it is a chemical substance, but if we compare ozone with another form of oxygen, it is a latental substance. Both forms enter processes often with one and the same other chemical element and in both cases galom remains the same; consequently, it is the same in all the latent conditions of oxygen. On this bases it is apparent that oxygen must transform five parts of every nine of its latent heat into temperal heat in order that three volumes of it should become two volumes of ozone, and this is the source of heat in the fire.

The process of freeing heat and the opposite process of binding heat in the interior constitution of substances show the analogy between temperature and chemicature or the chemical condition as far as the proportion of the counterforces is concerned. If we go back to our experiment in Part I, Fig. 1, we see that the various conditions of the airbody are bound by the enclosure. These conditions are externally fixed latentures (bound conditions) which can be changed to internal latentures at certain points. If we press the piston way down and at the same time cool the temperature of the airbody below "the critical temperature," we finally reach a point where the body will become liquid. It is also a known fact that in case we press the piston down to the same point without cooling the airbody, it will not become liquid, but if we now withdraw the piston quickly, the air becomes partly liquid.

Exterior boundness by enclosure has been substituted by interior tension in part of the air which could not be supplied with heat quick enough to follow with its entire mass the motion of the piston. Boyle's law, formulated for the gases, is now partly transferred to the interior of the liquid. Pressure plus interior tension are inversely proportional to volume. Yet I do not mean to say that liquidity and solidity depend on interior attraction; the requirement for such attraction, antipolarity, is missing, they depend rather on

a certain strength of materity in the constitution of a substance.

There are two other sublaws which are here important: Gay-Lussac's law says that all gases expand equally in equal thermal actions which combines Boyle's and Dulong & Petit's laws. Avodagro's law says that different gases under equal pressures and in equal temperatures have equal chemical values in equal volumes, which substitutes volume for weight as the true measurement.

These two sub-laws do away with any apparent differences in the various conditions as far as the essence of stuff is concerned by showing that the so-called physical and chemical conditions are merely different forms of binding or fixing stationarily or permanently certain propositions between the otherwise transformable counter-forces which on account of the possibility of transformations must be of the same character and belong to the same essence.

We have now gone through all the inorganic conditions of stuff and found the same constant force product in all of them. The organic substances are produced from the inorganic. Since transformation of forces and changes of conditions are possible only when essence is and remains the same, analogy shows that also in all organic conditions of stuff galom is the same as in inorganic.

No action or process of any kind, be it mechanical, thermal, electrical, latental, chemical or organical can change galom, the force product constant in space and time. It is the absolute essence of the world.

* * *

There are two different hypothetical absolute zeros of heat, that of the materialists and that of the physicists. The materialistic zero of heat we have seen above; it is at the point where the material atoms are packed together so tightly that they cannot move. At this point, the materialists have absolute matter without heat or any other active force or energy. If there is no such point within stuff then stuff is no matter. But the absolute zero of heat of the physicists is somewhere else. In Fig. 1 it is at the bottom of the tube. The piston has to press the airbody out of existence in order to get there. The zero of heat is the zero of stuff. It has

no physical meaning but is of some theoretical value; it should be made the zero of every thermometer, because expansion is proportional to the strength of heat. The thermometer though is not a temperatometer because heat is not temperature but only a force in it. The zero of the temperatometer should be at zero of nature, or at the point in temperature where cold and heat are equilibrated and imperceptible. From the point of this zeronic temperature, both, cold and heat should be graded according to the principle of the contravaxant. The grades of heat then increase and decrease "geometrically." The base of gradation should be 2. The ball at the bottom should be equal to the volume of the first principal grade with the base 2. This temperatometer which I have designed many years ago will be of scientific value.

(A 4). Electricity is abnormal temperature, mainly on the surface of solid bodies. It is loose, freely transmitted and easily equalized. "Negative electricity" is abnormal heat which has been forced onto the surface of bodies *stronger* and quicker than what the bodies could absorb. We call this force in electricity electrical heat or patero-electricity. Lightning is electrical heat; it is heat from the sun which was intercepted by a cloud, where it was temperal heat. When forcing its way through the insulating air to the earth, it takes the form of lightning and when it reaches solid bodies, it becomes patero-electricity until it is absorbed in temperature.

"Positive electricity is electrical cold or matero-electricity. It is not transferred nor are there "streams" of it, but it is induced by repulsion or attraction from another electrical condition. The application of the two words "negative and positive" to the counter-forces in electricity is antiquitated and should be dropped; they date from the period of the fluid-theories. Positive electricity was supposed to be the presence of the electrical fluid and negative electricity the absence of it, while in temperature, heat was supposed to be positive and cold negative, therefore, negative electricity and positive heat would be identical, which shows the prevailing confusion.

There are no negative forces, both electrical forces are

positive if we speak of forces at all with the understanding that they are mere tendencies of stuff-conditions. Since heat and patero-electricity on the one hand and cold and matero-electricity on the other hand are identical except in form, the same law applies to electricity as to temperature.

Ohm's law is the empirical proof for the inverse proportionately of the electrical factors.

Electricity, being abnormal and the loosest of all conditions, exhibits the peculiarities of antipolarity, magnetism and equalization most conspicuously, it is, therefore, interesting to the philosopher as well as valuable to the technologist. But in nature the importance of electricity is limited; most conditions called electrical are simply strongly polar temperatures.

App. to Art. XVII: Galomalism.

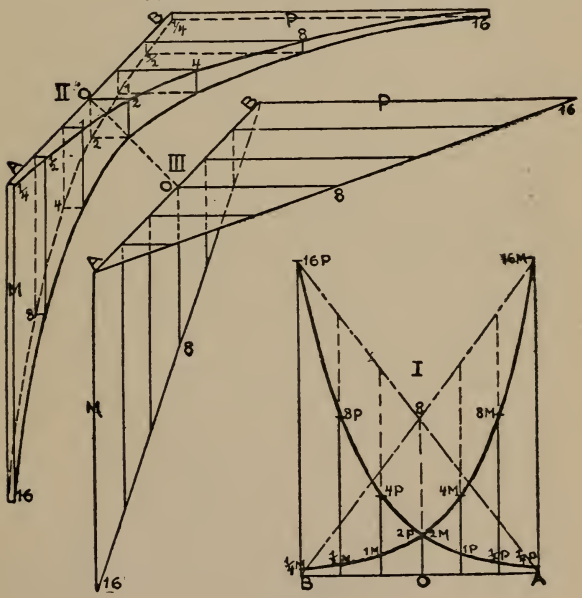

Fig. 2.

(A 5). To definitely explain the fundamental principle

of galomalism and to fix it in a mathematical shape, so as to prevent future misrepresentations is the object of Fig. 2. Part I gives a geometrical presentation of contravaxantism. The axis AB is divided into equal grades and ordinates are erected thereto which are limited by two logarithmic curves, in this application called *vaxodes*. The plane between a vaxode and the axis is a vaxant and a pair of vaxants is a *contravaxant*, the law of which is *contravaxantism*.

This law means that the ordinates in the vaxants, when moving along the axis uniformly, grow inversely proportional and that their product, when they are multiplied at any point on the axis, is constant. This constant product, representing galom, is made 4 to avoid the idea that it must be a unit, because contravaxantism is no number principle and galomalism is the only philosophy which is clear of number mysticism.

The law of this figure includes all the empirical laws of nature, such as Boyle's, Dulong & Petit's, Ohm's, and what I have added to them. It is now the one law of the world, meaning the inverse proportionality of the counter-forces and the constancy of their product.

The two angles in Part I show the mechanical principle of the dualistic philosophies. One of the angles would be the monistic principle. Instead of curves we have here two straight lines deviating from the axis in forms of angles which represent the uniform or mechanical increase of the forces, starting with zeros. This figure represents the speculative laws of nature, such as Newton's laws. From the cone, being the rotation of the angle, the forcelines of the mechanical theory of nature are derived which all include the zero in their mathematical character.

Our figure of this law shows that the two ordinates on any point of the axis, representing two absolutes, when added furnish a constant sum indicating constancy of the two together in space, but their product varies. The principal difference between the dualistic philosophies and galomalism is now shown to be between addition and multiplication of the two opposites in the world: Matter plus spirit or materity times paterity. All empirical laws of nature require the

multiplication instead of addition of the opposite forces. Dualism, therefore, is unscientific and untrue.

To illustrate the difference between dualism and galomalism still more plainly, the Parts II and III show the geometrical Part I in an isometrical manner. In both cases is the line AB the axis to which the ordinates for heat (P) are placed horizontally and for cold (M) perpendicularily. The constant product in Part II is 4 represented by oblongs which by their varying forms represent the conditions of the world-stuff and by their sides the forces.

This illustration shows the counter-forces as the varying dimensions of the constant cross-section of a solid which represents the possible conditions of the world-stuff. No matter where we cross-section this solid which could be extended infinitely at both ends, the section is always of the same size of 4, only the forms of it which represent conditions, are varying. The constant section represents galom.

In Part III, the figure of dualism, the two ordinates on each point of the axis, when added, give a constant sum of 16. The ordinates now represent two force-stuffs such as matter and ether, and their constant sum means the complete filling of space by them, as is also meant by the constant product of Part II. If we multiply the ordinates in Part III we produce varying sections, but multiplication has no sense in this case because the two entities are not related to each other as factors nor in any other way except that they both exist and fill space together, of course, per hypothesis.

We know that it is not the addition but the multiplication of the sides which produces the section of a body. The essence of the world-stuff is that which it is on the average, no matter where we may section it to see the inside. Dualism offers no such section because it has but the appearing sides of stuff of which it makes two stuffs. It remains on the surface, because by adding the sides it obtains nothing solid, space-filling, or stuffy. The stuffication of the forces themselves is a logical impossibility. But galomalism, by multiplying the forces, obtains the space-filling being.

I can cut the galomalistic principle out of wood because it means something plastic or space-filling, but the dualists cannot because they have no wood, no stuff. Part III of

Fig. 3 allows us to look from below into the hollowness of dualism. The space-filling being is missing; present are but two crippled abstractions of conditions which are added to each other instead of multiplied by each other as required by all the empirical laws of nature.

Neither the onesidedness of monism nor the twosidedness of dualism can represent the stuffessence because this is sectional. Multiplication instead of addition of forces is now the true principle of philosophy.

In dualism the two absolutes are in extremes. At *A* we see supposed pure matter and at *B* pure spirit. Between them are the mixtures. Monism and dualism are extremistic philosophies. But the absolute of galomalism is not an extreme nor the mixture of two extremes. In Part I there are no zeros nor extremes. Never can there be a point in the row of possible conditions of stuff where there is but one force and the other missing, because at this point we would have no force-product nor stuff-essence as required by the empirical laws of nature. It means that the absolute is neither extremely hard like matter nor extremely soft like ether, but it is hardsoft or rather it is neither hard nor soft which are concepts referring to conditions.

App. to Art. XIX: *The Conditions of Stuff*

(A 6). Fig. 3 is a theoretical illustration of an explanation of the so-called "interior constitution" of substances which in its outlines is not in conflict with the galomalistic principle.

Investigations of sound and to some extent of light have shown that these excitations are fluctuary (often called "pulsatory") and cause undulations with waves rectangular to the direction of the fluctuations. Granting this, it is justified to conclude that all interior excitations of substances have the same form.

In our figure, the wavelines represent very thin strata of a substance, the forces of which are tensed in spans represented by the squares *a b d c, c d f e,* etc. These spanned parts, peculiar to the substances, have been named *spantoms.* The tension in each kind of spantoms is limited by a certain proportion between *s* the maximum of the passive, and *t* the

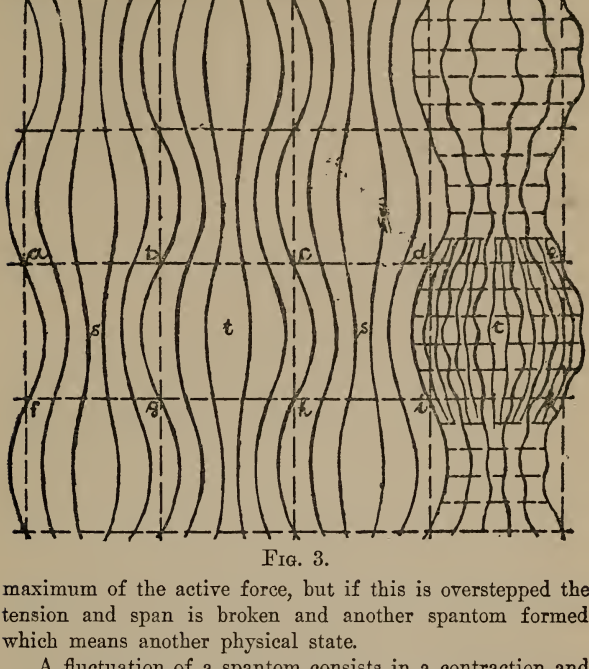

Fig. 3.

maximum of the active force, but if this is overstepped the tension and span is broken and another spantom formed which means another physical state.

A fluctuation of a spantom consists in a contraction and expansion of it while the cross strata swing to and fro like strings, snaps or pendula and according to the same law with a constant vibratus but with varying intensities and long periods of near quietude. Motion is not essential but circumstantial.

If we now imagine the whole system in full excitation, we see the maxima and minima of the counter-forces, heat and cold, change places in each line of spantoms, generally accompanied by a transmission of heat to the interior or exterior of the substance. In each fluctuation there are two moments when the lines are straight, which are analogous to the dead point of the string or pendulum.

The spantom has no fixed place in the substance, but

is simply a substance's peculiarity to fluctuate its forces in this form and manner, unless it is shaved or dissolved to such small parts that the regular spantoms have no room in it. The size and action of a spantom is dependent on the condition of the substance, but it is not necessary to suppose that there is always intense spantomic excitation in a substance when not acted upon in any way. That terrible molecular disturbance imagined by the materialists, even in a substance that lies quiet in the dark for years, has no sense when we consider the true nature of motion, caused and resisted. In an equalized condition there is no motion. The spantomic action only serves to equalize the condition of a substance when acted upon.

In the spantom the same law prevails as in the airbody of Fig. 1 under mechanical action, always maintaining the constant force-product, galom. If the substance gets heated the spantoms expand like bodies without changing the proportion between the maxima *s* and *t*, until a point is reached were the spantom breaks and jumps into another tension and proportion between *s* and *t*, the substance, thereby, entering a warmer latenture or bound proportion between its counterforces, another "aggregate state" or "physical condition."

I have called the solid, liquid and gaseous states and the states within them, latent or latental conditions or *latentures*, firstly to indicate the analogy with temperatures and secondly to say that they are latent or bound proportions of forces. Since the materialistic terms could not be used, new ones had to be coined.

Every substance has its own spantoms which determine its physical properties. The shape of the spantoms need not be cubical but may be of other forms that fit closely together, such as forms of crystals, but I shall not go into details. At the surface of a body the vibrations of the regular spantoms of its substance strike the air which receives and transmits this excitation as light of the color determined by the vibratus of the spantóms. Generally it is required that a strong light strikes the spantoms to cause them to vibrate the light of their color or vibratus perceptibly.

When the surface is under mechanical influence, such as friction or striking, the upper layer of spantoms is caused

to strike out abnormally. It takes the heat required for this expansion from the air and transmits it to the lower spantoms, thereby heating the body in direct proportion to the machanical action. It is, therefore, wrong to suppose that mechanical action or "work" is transformed to heat. Heat is not action but force. The respective experiments show nothing but that action of that kind causes heating. "The transformation of work to heat" is a mistake. One force can never form action which requires opposition of forces.

If the surface of the body is influenced abnormally, smaller spantoms are formed within the regular spantom, g h k i, which then means electricity as an abnormal condition at the surface, with great ambition to effect equalization.

If we call the general force-condition of a substance *galomature*, it is *temperature* as far as it can be changed by mere cooling or heating without changing the proportion between *s* and *t* or without disrupting the spantoms; it is *electricity* as far as being abnormal temperature at the surface; it is *chemicature* as far as it is bound in a certain proportion between the counter-forces in a spantom, and it is *latenture* as far as this proportion is changeable by disruption and reconstruction of the spantoms.

For the sake of simplification we add electricity to temperature which now includes all free conditions, ready for immediate equalization without reconstruction of spantomic constitutions, and we add latenture to chemicature which now includes all bound conditions fixed by the various spantomic constitutions and changeable only through changes of these constitutions. Oxygen and ozone are two latentures when compared with each other, but they are two chemicatures when compared with hydrogen or, any other substance not spantomically related to oxygen. The chemical products are related in their spantomic constitutions to the elements in simple ratios.

The identity of galom in all forms of the conditions of a substance, in temperature, electricity, chemicature and latenture, is apparent in this explanation of the spantomic constitution which is not a proof for galom but speaks well for this constitution being the true one in principle. It is open to experimental investigation because the spantom is

not mysterious and untouchable like the molecule, but within our reach. Shaving of slate cuts the spantoms and changes the color. Transparent substances have weak or undetermined spantoms, admitting the passage of induced spantomic excitation.

There are no atoms and molecules, and theoretical determinations based on the materialistic hypothesis, such as the "atomic weights" of many elements and molecular weights of many "compounds," are erroneous. For instance, if oxygen is 16 times as materal and heavy as hydrogen, then $H20$ or the vapor of water is not 2 plus 16:2 equals 9 times as heavy as hydrogen but its weight X is according to the formula: $2:X$ equals $X:16$, which means that X or the weight of the "compound" (equatum) $H20$ is the mean proportional between that of $H2$ and O, or equal to 5.7. The reasons for this formula are given in connection with the law of equalization.

An experimental illustration of the chemical conditions in regard to their forces may be given in this way: For a similar experiment as that of Fig. 1 we take a high tube and piston and divide it into 256 degrees of volume. As a substitute for our zeron we fill 16 degrees of it under the piston with normal oxygen and call this point our zero with 16Mx 16P. We now press the piston down to 8 degrees and reach here the dynamic condition of sulphur, though no real sulphur because its constitution is missing; we press it down further to 4 degrees and reach copper; we go to 2 degrees and reach tellurium. We are compelled to go slowly now but we can reach 1.07 degrees where we get the force-condition of uranium if we accept weight as the practical measure of it. Chemical reality goes no further and we shall stop too, especially as we cannot reach the absolute zero of chemical heat of nihilum any more than the absolute zero of any heat.

We now go back with the piston to the zero condition at 16 degrees and then pull the piston upwards. At about 21.3 degrees we meet the dynamic condition of carbon, at 39 degrees that of lithium at 128 degrees that of H2 and at 256 degrees that of ordinary hydrogen. We have again reached an

extreme of chemical reality, as far as known, though no theoretical limitation is in view.

We now draw a large contravaxant as explained before with four duplications of the ordinates at each side of the zero and place zeron, or practically oxygen, at the middle with 16*M* and 16*P* as the ordinates. At 1M x 256P at the left we place hydrogen and near to that distance but at the right from the zero at 240*M* x 1.07 *P* we place uranium, and all along the contravaxant between these extremes we place the elements in their various latentures, for instance seventeen lines for carbon, five for oxygen, etc. If these positions now are not merely true in regard to weights but really in regard to chemical colds and heats, we will then get a figure which will tell us something in regard to relations and periods and which will enable us to determine the forces of "combinations" or rather equalizations on the drawing board by merely drawing the ordinates at the middle on the axis between the respective elements or their latentures. This figure I call the *chemograph.*

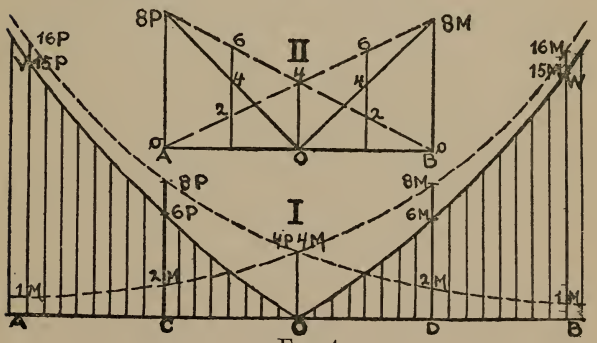

Fig. 4

(A 7). The preponderant forces in conditions of the world-stuff are of great importance in physics as the expressive forces in nature. In the system of the contravaxant as shown again in Fig. 4, the curves *VOW,* called *transodes,* limit the preponderant parts of the forces when ordinated to the axis, being of same sizes as between the *vaxodes.* The

planes between the transodes and the axis are the *transants* and the principle represented by them is *transantism*, the law of the expressive preponderant or transant forces.

With our perception we are at the zero of transantism or of the preponderance of forces. Judging from this point, we call conditions warm or cold according to whether paterity or materity is overweighing in the proportion between them. Temperate imperceptible temperature is zeronic. If a substance is also temperate chemically it is zeron; if this condition is attained by the organic process, it is nirvana, which is at the zero of transantism. In nirvana the transant forces are weak or theoretically equal to null. Yet this is the normal condition of stuff, while all polar conditions with strong transant forces must be considered as abnormal.

* * *

(A 8). The being world of course is infinite, but the real world, actual in nature, is limited. It extends as far as metaphysical antipolarity. Half of the real world, represented by the celestial bodies, their atmospheres and the nebulae, is conditioned on the one side and the other half on the other side of the zeronic or indifferent, normal condition.

But while this division into two halves, a matero-polar and patero-polar, is true in regard to polarity, it is not so in regard to masses. Both sides of antipolarity have equal amounts of materity, but the pateral or warm side has the heat that is missing in the materal side, the former is, therefore, of a very much greater extension or mass of stuff. When equalized the size will be equal to that of the two former sizes together.

It follows that there is on an average equal strength and importance to be credited to both forces. But it is the passive force, materity, which causes the trouble in the world, because it becomes tied up in the rigidity of the solid substances where only strong active force or heat can release it. It is the matero-polar side of the world which causes the difficulties, complications and variations of nature and requires organic life for the reach of nirvana, while the gases cause but little difficulties.

App. to Art. XX: MAGNETISM AND GRAVITY.

"Universal Attraction" being a mistake, it is to be shown that there is as much repulsion as attraction in the world which on an average is at equilibrium between the two. We have the empirical fact that cold attracts heat and repulses cold and that heat attracts cold and repulses heat. Both are equally important factors of being with tendencies opposite, towards each other, therefore, with magnetic energies, attraction and repulsion, which are also factors.

Conditions of stuff in which preponderant heats are latent, such as the polar gases, repulse themselves and each other with the products of their transant heats, as shown in their dispersions, and solid and liquid substances repulse themselves and each other with the products of their transant colds, as shown in their solutions. But with the latter the passivity of cold, causing rigidity, offers difficulties.

Just as well as we have two principal classes of stuff-conditions, the chemical including the latental, and the temperal including the electrical, have we also these classes of magnetism. Only in regard to the magnetic relation of an immense mass to a small one, such as the earth to the bodies on its surface, this classification is of no apparent account.

Within the two polarities there are waves of antipolarity represented by the chemical periods which have some resemblance with octaves; therefore, there are subdivisions of magnetic relations. In temperature and electricity these variations are marked in regard to conductivity.

Disregarding the complications, Fig 4 shows that on each side of the zero-condition there is general repulsion among the polar conditions of that side and general attraction with the polar conditions of the other side, therefore, repulsion and attraction in general are equal.

The magnetic energy between two conditions in equal volumes, such as A and D in Fig. 4, is, therefore, to be calculated thus: $16P$ of A attracts 8 M of D with the product $128a$ and repulses 2 P of D with $32r.$; 1 M of A attracts $2P$ of D with $2a$ and repulses $8M$ of D with $8r$. There is a total attraction of $130a$ and a total repulsion of $40r.$, therefore, a transant (preponderant) attraction of $90a$. We arrive at

the same result by simply multiplying the transant $15P$ of A with the transant $6M$ of D.

Between D and B of Fig. 4 is a transant repulsion of $90r$, between two equal volumes of A, of $225r$ and between A and B is a transant attraction of $225a$ while between C and D there is but $36a$.

Transantism becomes important as the law of the magnetic energies in nature; it is not a mechanical law but a natural. But the modifications caused by unequal volumes are mechanical as is anything else that is spatial. 2A enter into magnetic relations with $30P$, $3A$ with $45P$, etc. Between $4A$ and $1B$ is an attraction of $900a$.

The nearer to the zero of transantism the weaker becomes the transant magnetic energy, until at the zero there is none. Zeron enters with null into any relations, it is, therefore, indifferent to all the other conditions and substances, at least it is so chemically, but physically only when it is at zeronic temperature and electricity, uninduced.

* * *

(A 9). Newton's law of gravitation is the principal bulwark of the mechanistic theory of nature. It is a mistake! It is based on the supposition that "matter attracts matter." Repulsion then there is none. The attraction is absolute and independent of conditions and antipolarities. Two equal bodies attract each other as much as two bodies of which the one is cold and the other hot. With magnetism in a small scale it is known that this is not true, but with gravity it is supposed to be different. It is the size of things that imposes on many minds, as we have seen before in regard to the perpetuum mobile.

Newton's law consists of two parts, the law of gravitation of a falling body and the law of the distribution of gravity in space.

The law of gravitation is based on this speculative supposition: *The velocity of a falling body increases uniformly.* The supposition is a mistake.

"Velocity" is a deceiving term; in Newton's law it stands for the energy that effects the fall. It has been called "kinetic energy" but more especially will we call it fall

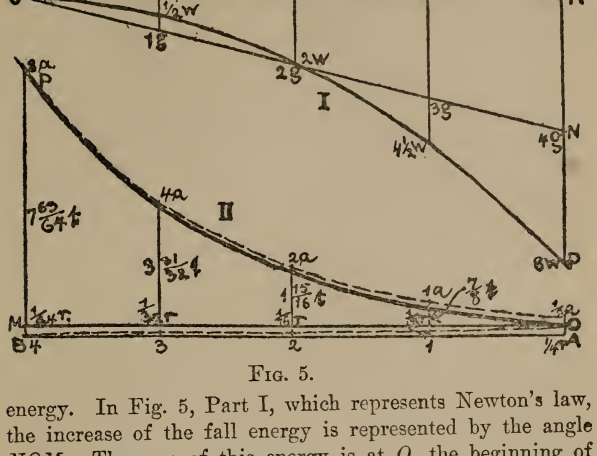

Fig. 5.

energy. In Fig. 5, Part I, which represents Newton's law, the increase of the fall energy is represented by the angle *NOM*. The zero of this energy is at *O*, the beginning of the fall.

After the first second this energy is equal to 1*g*, and in every following second it gains 1*g*. It is not stated and would be hard to say where the additional energy comes from. This part of Newton's law is a law in itself; it means the uniform increase of a natural energy. Such increase, purely mechanical, can always be traced back to a zero, in this case to *O*.

Gravity is the preponderant attraction between body and earth. When the body is supported to rest, gravity has the form of weight, pressing on the support, but when that support is withdrawn, gravity changes its form from weight into fall energy or "velocity." This is a conspicuous case of transformation of energy. "Potential energy" transforms into "kinetic energy." But Newton's law requires the zero of the kinetic energy at the beginning of the fall! What becomes of the weight the body had before it began to fall? At Newton's time "the law of the persistency of energy" was not yet established, but what must we think of the modern energeticists who do not object to Newton's law though it is in direct contradiction to their philosophy?

The second part of this untrue law says that the traversed space increases as the square of the time of the fall. In our Fig. 5 this is represented by the parabola *OP*. Cause and effect, everywhere else directly proportional, are here proportional as the arithmetical progression to the progression of the squares. This is in itself a wrong principle. If a cause increases uniformly, the effect of it does also.

Newton's law of gravity, referring to the distribution of gravity, is simply the law of spheric space. Whether there is also a physical cause affecting this matter is not considered. The "density" of our atmosphere is a direct effect of gravity; it does not diminish according to Newton's law but according to "the law of the logarithmic curve" (vaxantism) modified by the spheric law. I cannot follow this matter any further at present. In 1897 I published a book called "Die Schwere, oder Isaac Newton's Irrthum." But they still teach the same old mistake.

Newton's laws are disproved, and with them all other purely mechanical laws and "the mechanics of the heavens." Kepler's laws are also mechanical. These laws are replaced by laws forming parts of the general law of nature, contravaxantism, modified by the law of space.

Part II, Fig. 5, shows the curve of the new law of gravitation; it is a transode resulting from attraction minus repulsion and representing cause and effect or gravity and traversed space both. Gravity and velocity increase, because the pressed air under the body cools the falling body and, thereby, increases its polarity and its attraction to the earth. Because the body cools while collecting the resistance of the air, it is more strongly attracted by the warm earth, and because this is the case, it presses still harder on the air and is cooled still more and so it goes on during the whole fall.

Experiments could hardly decide between the two curves of Fig. 5, because they are not extensive and accurate enough and the curves look very much alike. The right curve had to be found theoretically. But my present object is only to show that the mechanical laws of nature are untrue. Nature is not a mechanical process.

* * *

(A 10). Mechanics is the science of the rest and of the motion of bodies. It is usually subdivided into statics as the science of rest and equilibrium and dynamics as the science of motion.

But the world "dynamics" properly indicates the science of forces though no such science existed. Force and motion are not identical and their laws are different. The mechanical character of motion is conceded, it is circumstantial in time and space and the law is mechanical. But a force is an essential factor of being and its law, which has been established as vaxantism, shown in the figures, is not mechanical.

It is again required to call attention to this difference. The mechanical law applies to quantities in time and space, the dynamical law applies to strengths in conditions. The mechanical operation consists of additions and substractions and the dynamical adjustment consists of multiplications and divisions. If two mechanical quanties are added, the result is their sum and the average per volume is the arithmetical middle of the elements, but if in the equalization of two stuff-conditions the forces are adjusted, the resulting forces are at the geometrical means of the respective forces of the elements.

Dynamics is not the science of motion and no part of mechanics, it is a part of physics in its original sense and in the explained sense of the science of the equilibration of the counter-forces.

The entire philosophy of the past was mechanical which was the reason of its failure, a fact well expressed by Leibnitz, Du Bois Reymond and others, none of whom saw a way out of it. All the philosophical terms are mechanistic, but I must use them as symbols to avoid the difficult introduction of too many new terms. But when I use terms with mechanical meanings, such as equilibration, equilibrium, antipolarity, pendulation, etc., and apply them to dynamic adjustments and conditions, I do it with the excuse that for the present there are no fitting terms for the ideas to be expressed. I feel that a future international language will have them.

App. to Art. XXI: Theories of Nature.

(A 11). In accordance with galomalistic science of nature which requires antipolarity for nature's cause, the nature of the solar system cannot be explained by the Kant-Laplace theory of the origin of this system, according to which nature would be a process of cooling and materializing, starting with a hot nebula and effecting cold solid bodies. Other inadequacies of that theory are known.

It is required to outline here a theory which is in accordance with the galomalistic principles and does not contradict really known facts:

Dark cold stars without atmospheres are existing, our moon is one of them. The sun was once a matero-polar star, consisting of solid elements which had never gone through a process but were in their virgin chemical condition from eternity, because this star was surrounded by zeronic stuff, such as argon and its class.

Far away from this matero-polar body was a nebula consisting of patero-polar gases, such as nitrogen, oxygen and mainly hydrogen. The nature of this hot body was also very limited, because the opposite condition was missing.

These two bodies, being antipolar to each other, attracted each other and moved together. They met and the nebula became the atmosphere of the sun. Immediately the elements on top of the sun began to burn in the acquired atmosphere and that was the beginning of the solar nature.

It is mainly the hydrogen in the sun's atmosphere which supplies the solar heat. If the sun consisted of coal and burned in oxygen, we know it would not have lasted very long, but there are indications that it consists of elements of extreme polarities such as the metals with plenty of the class of uranium among them, therefore, the burning of the sun is very intense and durable. The product of the combustion of uranium, radium, etc., with hydrogen is helium and other dead gases of which there are immense quantities around the sun, which to that extent is dead.

But there are also products and substances which will not burn; they form large masses of slag floating on the molten surface of the sun; they appear as sunspots. Now and then

a large body of sunslag separates from the sun through the centrifugal force, assisted by an explosion from below, getting the upper hand over the attraction. Such slagbodies, taking the shape of globes and rotation from tumbling over, flew away in spiralic orbits and became planets.

Or an explosion spattered the slag into space which then became a swarm of meteors; or an explosion blew away a large bulk of vapors together with a swarm of slag pieces and the two became a comet. Commonly the centrifugal force near the equator is sufficient to project the slag that gathers there, the direction being inclined to the poles, the slag after some years of flight through the air lands near the polar regions. Swimming on the molten surface, it follows the increase of centrifugal force toward the equator until it is again projected. These rounds form periods of about 11 years.

Our earth is a slagbody with an atmosphere taken from the lower portions of the sun's atmosphere. The temperature on earth became very favorable for a complete nature; but as far as the chemical conditions are concerned, they are very unfavorable because the earth is a chaotic slagbody, consisting of substances, which have gone through a process. It required the development of organic life to overcome the chemical difficulties; this life could not exist on earth if it were not a slagbody but a body of virgin elements.

The first temperate period and with it organic life originated in the polar regions where the "missing links" are under the icecrusts. Through further separation from the sun and cooling of the earth, mild temperature moved towards the equator. When for the first time arriving in middle Europe, human beings already existed in their stoneax stage of evolution. The north became very cold, the temperate zone moved to the equator and the glacial period followed when the earth was furthest away from the sun. Organic life saved itself in the present hot zone in caves and otherwise.

The antipolarity between earth and sun was now sufficient for an attraction which overbalanced the centrifugal force; the earths orbit became a circle, slightly stretched by the resultant of the magnetism of the fixstars, and then it

began to condition the second period of mild temperature through the earth's spiralic involution of its orbit.

The sun's heating influence became greater than the loss of heat of the earth. The mild zones are moving to the poles, followed by the hot zone. In 7000 years the mild climate has moved from Egypt to Germany. Finally, organic life will cease where it began, in the polar regions.

App. to Art. XXII: The Law of Nature.

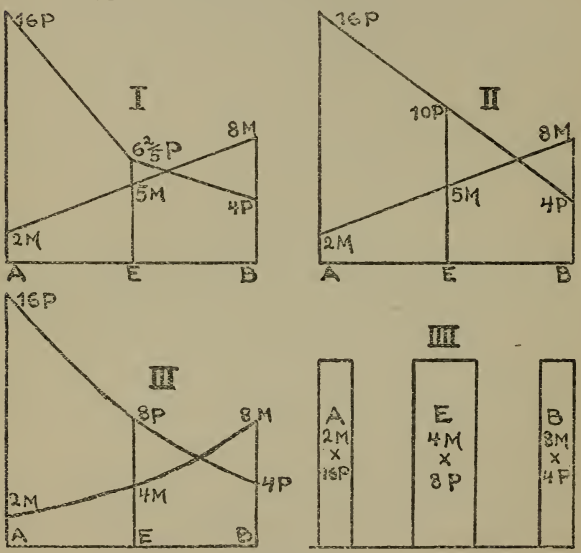

Fig. 6.

(A 12). The first part of our Fig. 6 illustrates Richmann's law of equalization. The double ordinates at A and B represent two equal volumes of stuff of different conditions or we may say two equal bodies of antipolar substances.

The element *A* contains 2 parts of "matter" and 16 parts of heat and *B* 8 parts of matter and 4 parts of heat; the product when multiplied is 32 in each case. Since the constancy of this product was known in chemistry this law preserves this constant as well as "the constancy of matter";

the first for empirical and the second for speculative reasons. The formula of Richmann's law is now:

$$\frac{2M \times 16P + 8M \times 4P}{2M + 8M} = 6\tfrac{2}{5}P.$$

Suppose *A* and *B* were two equal glasses of water of different temperatures which are always ready for equalizations; we pour them together and the question is now what is the temperature after equalization, supposing of course that no heat was lost?

The materialists say: Matter is constant, therefore, it is still all there, namely 2+8=10M, distributed in 2 volumes makes 5M per unit. But they do not treat heat in the same manner. The constant product of matter and heat though is accepted, it is 32, this divided by 5M gives a heat of 6⅖P after the equalization.

The total heat of the elements was 20P; the heat of the equatum is 12⅘P, 7⅕ parts of heat have been destroyed, anihilated in this process. Why not? Materialism is not responsible for "the law of the indistructibility of heat," neither are we. And the energeticists have not yet objected to this "great law of nature."

Part II of Fig 6 represents the dualistic law of equalization: Both supposed entities "matter and ether" or "matter and energy" are maintained at their full amounts, their sums throughout remain constant, but their product changes through the equalization. This law is that of the philosophy of the modern scientists. It is contrary to all the empirical laws of nature which do not require the constant sum but the constant product of the opposites.

Part III illustrates the galomalistic law of equalization. *A* and *B* are now substances with the marked counter-forces as essential factors. They atract each other with the transant factors of 14P X 4M equals 56a, which would be the energy of their motion towards each other if free to follow it. When they have equalized, the new condition at *E* is 4M X 8P.

The total materity has weakened by two parts and the paterity or heat by four parts. This is against the two laws of preservation of dualism, but these laws are mistakes. The "law of the preservation of energy" has placed heat on

an equal basis with matter, as of equal importance, and that is the good it has done.

I do not say that heat is ever destroyed, as is done in Richmann's law, but I do say that the notion of preservation or indestructibility can be applied only to something that has being, is an entity. But the forces are no entities, have no being of their own, therefore, cannot be preserved. Neither are they properties, therefore, cannot be destroyed. The forces are factors of being and as such have to adjust themselves in every equalization to the constancy of their product, galom. The new law maintains the constancy of the force-product, the indestructibility of stuff and the equal importance of the counter-forces, but not the constancy of forces and energies as entities because they are none.

Part IV shows the quantities of the elements *A* and *B* to be equal and the quantity of their equatum E being equal to their sum; this matter is mechanical. But the forces are at the geometrical middles, are the mean proportionals of the elementary forces. Yet no being has been lost, nothing is anihilated. The two "great laws" of the preservations of matter and energy, which were in the way of nirvanaism, are mistakes.

Since nature is the process of equalizing the conditions of the world-stuff, the law of equalization is the law of nature, and this law leads to nirvana.

App. to Art. XXIII: Inorganic Life.

(A 13). The materialists call the chemical processes "combinations," perceiving them to be mechanical reconstructions of their molecules. It is known that this explanation does not fit the facts, which show no combinations, neither of properties nor conditions.

The equality of essence and space-filling massiveness of all substances as stuff and the equal importance of the counter-forces require that a purely chemical equalization of conditions takes place between equal volumes of stuff in equal temperatures. Not weight, but volume is the true theoretical measure of stuff, though weight as a practical measure of substances has great technical advantages and, therefore, will not be abandoned in chemistry.

Against the fact of equal volumes for chemical processes there seems to be what the materialists have called "multiple proportions in combinations," which were the main cause in modern times to revive the atomic hypothesis. But the "multiple proportions" are not found in purely chemical processes, but in such only as are accompanied by processes of freeing latent heat, the processes of burning.

When oxygen burns it goes through two processes, first it becomes ozone by changing five of each nine parts of its latent heat into temperal heat in the form of fire, at the same time reducing each three volumes of stuff to two volumes, thereby changing its latenture or "aggregate state" to one of open polarity, eager for equalization. A part of the freed heat is used to evaporate the other element. When all this is done the two gases equalize chemically, volume for volume. Whenever heat is freed and burning takes place, it is a latento-chemical process.

Since each latent condition of a substance is also a chemical condition, of which oxygen has five and carbon seventeen, the substance can enter into chemical processes in as many proportions of its forces as it has these lalentures. It can enter in "multiple states," which explains the "multiple proportions without requiring atoms and molecules.

It is a mistake to explain the heat freed in processes as coming from the cold sides of it, for instance from coal, radium or other substances of low chemical heats that enter these processes. Not the coal but the oxygen heats our houses by freeing five ninth of its latent heat when burning the coal, neither is it the solid body of the sun but mainly the hydrogen in its atmosphere which is the lasting source of "the spirit of our heavenly father" which generates all life on earth. In order to become $H2$ the hydrogen has to free three quarters of its heatquantum, or in order to become $H4$, it has to free fifteen sixteenth of its heat. This important substance contains 256 times as much heat as zeron, the normal substance or as oxygen. No wonder the sun is shining forth!

App. to Art. XXXI: The Location of the Ghostworld.

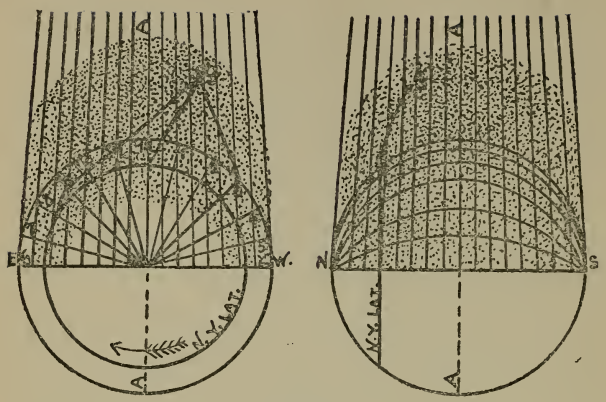

Fig. 7.

(A 14). Fig. 7 is an illustration of the location of the ghostworld relative to the earth, as it has been conceived from my limited experiments. Part I is the view from the north; the upper part is the night side of the globe, the shadow being indicated by plain lines. The inner circle marks the lattitude of the rotation of New York. The hours of the night are marked by radii.

From 8, 12 and 4 o'clock at night, straight lines are drawn into the shadow meeting with the proportion of 45 to 22 to 32 which were the lengths of time in minutes of the experimental tours of the ghost *G.*, as told in Art. XXXI. It is a simple method of construction which effects this common meeting point of these proportions. Two such points could be found but the lower is in the globe.

G.'s home in the ghostworld is over a point on the earth where it is 1 o'clock at night. Under G.'s home it is always 1 A. M. In his heavenly home are no days and no nights, but the everlasting sameness of heavenly blessedness which may do very well for a dead man like friend *G.*, but would not suit a living man. G. complains neither of darkness nor weariness. He is satisfied with his home, because it corresponds with his condition.

The lines of G's tours were neither vertical nor in the

plane of the latitude but much declined to the south. This declination was not determined and, therefore, the height of *G.'s* home above the earth not ascertained. All I know from the experiments is that his home is in the northwestern quarter of the earths shadow over 1 o'clock at night. It would require three measurements at that hour on three distant points of a meridian to determine G.'s home more closely.

Part II is the view from the west. A declination of the plane of G.'s travels is taken so as to be in the same plane with the New York lattitude, but I have no facts for this angle except that he says the travels were declined to the south. In both parts the dotted regions indicate the ghost-world as I have been impressed of its size, but future investigations may cause considerable changes.

The tail of a comet is in the same relative position to nucleus and sun as the tail of the earth. Both are created by the spiritualizing effect of the sun's light and mean a certain binding of the sun's heat, changed from the temperal to the chemical and latental forms. The process of life on sun, earth and comet differ in this: On the sun inorganic life is mainly chemical and the result of it is helium and other dead gases; on the earth, life is organic and leads also to dead substances, zeron in the form of ghosts, and on the comet, life is neither organic nor even chemical but latental, inasmuch as the sun's light evaporates the vapors of the nucleus to a higher or warmer gaseous state and adds them to the repulsed tail which returns to the nucleus when the heating influence diminishes. According to our terminology, it is a latental process. The earth's tail though is the result of an unreversible chemical process, the organic life process on earth. It increases continually through the dying of organic beings and consists of vegetable, animal and human ghosts.

The sun and his atmosphere are dead to the extent that they have become helium and other dead gases, and the earth and her atmosphere are dead to the extent that they have become zeron in the shape of ghosts. Helium is to the sun what the ghostsworld is to the earth.

(A 15). The condition of nirvana, being zeronic, in-

cludes zeronic or temperate temperature. It is to be found in the ghostworld, especially in the higher spheres of it. This does not agree with the popular notion of "absolute coldness of interstellar space" which is a mistake. Experiments with baloons mounted with self-registering thermometers have shown that at a height of about 14,000 meter the atmosphere becomes not colder but rather warmer with higher elevation. If the sun's light did not heat the earth and this by contact the air, the atmosphere would be coldest at the surface of the earth in direct proportion to its "density" or materity.

But that heating influence causes the warmer temperature below, it extends up only 15,000 meter, reaching higher at the equator than in the artic regions. Above that influence the air begins to get warmer on its own account until it reaches a uniformly temperate temperature, the average zeronic temperature of the world.

It is evident from the equal importance of the counterforces that if the world were uniformly equalized, it would be uniformly temperate. The cold and warm conditions are only at and near the celestial bodies. The interstellar masses are temperate in temperature as well as in chemicature.

The great mass of the ghostworld is located high enough to be in a mild and imperceptible temperature. The ghosts, therefore, consider the perceptible temperatures as "earthly conditions," not existing in heaven.

"The Tail of the Earth" I called my first book on this subject of ghosts and their world. I repeat again: Some planets have tails produced by the organic life-process on their surfaces. The earth is the principal one of these planets at present.

VOCABULARY

A new philosophy like galomalism naturally creates new notions, ideas and concepts for which the terminologies of the older philosophies have no names. I was compelled to coin a few new terms, because it is much better to do that than to express new ideas wrongly, inadequately or vaguely in old terms of debatable import. The term "entropy," used by English and German philosophers in opposite senses, shows the danger of applying old words to new ideas. Also some old terms have to be defined in the sense they are used in galomalistic philosophy, which has reconstructed their meanings:

Antipolar Stuffconditions—inequilibrated conditions of stuff with different preponderant forces, so that one class of conditions (the matero-polar) is colder and the other (the patero-polar) is warmer than the equilibrated or zeronic condition at the zero of the preponderance of forces.

Antipolarity—opposite polarities of stuffconditions at the two opposite sides from the point of indifference between them. It is the cardinal opposition in the world and the cause of all action and nature. Antipolarity is the metaphysical reality.

Apolarity—the absence of polarity of a substance or condition at the zero of nature, where the two opposite forces are equally strong. Apolarity is, therefore, final indifference, dynamic equilibrity, death or nirvana.

Being—that which simply exists and the world consists of. Speculative ontology has postulated a number of supposed beings, such as matter, spirit, ether, empty space, mind, etc., all of which were at the bases of false philosophies. After having the concept of space, being is that which fills space, which stuffs it and is, therefore, stuff, the worldstuff, independent of conditions, relations and actions. Pure being is absolute, uncreated, indestructible and independent of powers, time and space; it simply *is*.

Chemicature—the chemical condition of a substance in regard to the proportion between the latent or bound opposite forces of it, called chemical cold and chemical heat which the materialists have wrongly called "atomic or molecular weight" and specific heat.

Cold—the passive force of the worldstuff, appearing as cold in temperature or *temperal* cold, *electrical* cold ("positive electricity"—matero- electricity) *chemical* cold ("atomic or molecular weight) and *latental* cold (hardness in the latentures or "aggregate states," also called "physical states"). Cold in its many forms is the passive factor of galom; it is not "negative heat," but the opposite force to heat.

Contravaxantism—the law of the inverse proportionality of the essential factors of the world, the opposite forces of the worldstuff, and of their constant product, galom, when multiplied. It is the fundamental law and basic principle of galomalism. The system of the *contravaxant* and the sub-laws involved, such as *vaxantism* for each of the forces and *transantism* for the preponderant or *transant* forces, is shown by the figures in the appendix.

Counter-forces—the two opposite forces of stuff, cold and heat or, in general, materity and paterity. Their opposition is towards each other, for which reason they desire to be of equal strength and strive to gain and maintain equilibrium or indifference between themselves. These forces, however, are no beings and have meaning as abstractions only in their correlation as counter-forces, while in the absolute sense, as separate, pure or being forces they do not exist, because they are no stuffs that fill space. The mistake of humanity has been the stuffication of the forces to force stuffs, such as matter and spirit.

Energy—a tendency of magnetism, either repulsion or attraction. The magnetic energies are representatives of the galomal forces, cold and heat, and have the same law as these, contained in contravaxantism. Materity repulses materity and attracts paterity; paterity repulses paterity and attracts materity for reasons of establishing and maintaining dynamic equilibrium. In the same polarity repulsion is preponderant while in antipolarity there is preponderant or transant attraction. Only the transant energies are exertive

in nature, while the others are neutralized. Gravity is the attraction minus the repulsion between the earth and a body. There is no "universal attraction," such as required for Newton's laws.

Energism or Energetics—the popular philosophy of modern scientists, postulating a world consisting of stuff which is a "spatial composition of energies in various densities" or of "different intensities of energy." This means that either one or two energies are the essence of the worldstuff, which, therefore, is energystuff. Energetics is indefinite in its definitions of "energy" and often confounds it with force or action or motion or momentum or "work"; confusion being a feature of all untrue philosophies. Heat, a force, is considered the principal energy; therefore, energism is a sort of revived and modernized spiritualism. A consistent monistic energism has not been developed, because it is impossible if empty space as a part of the being world is impossible,—which it is. A dualistic energism with a passive and an active energy (really the opposite forces stuffified to matter and spirit) is not favored, because monism has become fashionable. Energism as an attempt at philosophy was the consequence of the establishment of the erroneous "law of the preservation of energy," which placed energy as an entity. The two laws of the preservation of energy and matter are wrong because galomalism proves the constancy of galom and preservation of galomal stuff.

Equilibrium—the mechanical equilibrium is the equality of two bodies in weight and pressure when counter-balanced. These bodies are then to each other motionless and at mechanical rest. Dynamic equilibrium is symbolical for dynamic indifference or a correlation of the interior forces of a substance in which there is no difference in the strength of the two counter-forces, materity and paterity. Dynamic equilibrium if chemically fixed is identical with death and nirvana.

Equilibration—the process of establishing dynamic equilibrium or equality in strength of the counter-forces. It would be mechanical if each of the opposite forces were absolute as postulated by dualism, because each would then maintain its full strength and their equilibration would be mere

mechanical addition and substraction. But the counter-forces being correlative and inversely proportional, they lose strength through every equilibration, the law of their preservation not being true. Nature is the process of equilibration of the counter-forces which by their various proportions to each other form the conditions of stuff which are equalized through that equilibration. It finally leads to a normal condition with equally strong counter-forces where there is the zero of nature.

Ether—the counter-part to matter; a hypothetical stuff the essence of which is pure heat; it is, therefore, heatstuff and is identical with spiritus. Ether is simply another name for spirit.

Etherialism—the modern remnant of old spiritualism. It is no longer monistic, but a part of the dualism of "matter and ether."

Force—the cause of an effect as appearing in induction. There is always present an active and a passive force, the two being the opposite factors of galom, their constant product when multiplied. Cold and heat in their many forms, or in general, materity and paterity, are the two worldforces which are related to each other as shown in contravaxantism.

Forcestuffs—hypothetical stuffs, such as matter, ether and spirit, the essence of which is a force. Matter or coldstuff is the passive and ether, spirit or heatstuff is the active forcestuff, the existence of both of which is denied by galomalism.

Galom—the essence of the world-stuff, inductively obtained by multiplying the counter-forces, materity and paterity, which are in this respect the galomal factors. Galom is the absolute essence, because it is constant in time and space, unrelated, unconditioned, unchangeable, absolute. It is represented by the constant product in contravaxantism.

Galomalism—the new philosophy based on galom being the essence of the world.

Galomature—the general condition of a substance in regard to the proportion of its counter-forces. Temperature, electricity, chemicature and latenture and the organic conditions of stuff are phases of galomature. This new term was required as a term of generalisation.

Ghost—an imperceptible organic being in the realm of death, wrongly called a "spirit." The human ghosts received this name because in ancient times they were the ghasts or guests to the sacrifices of vaporised food offered them by the living. Ghost is derived from ghast.

Heat—the active force of the worldstuff appearing as heat in temperature or temperal heat, electrical heat ("negative electricity"), chemical heat ("specific heat") and latental heat (softness in the latentures or "aggregate states"). Heat in its many transformable forms is the active (wandering, expanding, equalizing) factor of galom.

Indifference—the equality of strength of the two opposite forces and energies of a stuffcondition which is without difference or indifferent. Dynamic indifference, another aspect of apolarity and zeronity, is a more fitting term for this condition than dynamic equilibrium which reminds of mechanics.

Latental—conditions and forces bound in the interior constitution of a substance. Latental heat is not" latent heat" in the old sense, as a fluid concealed in a substance, but heat bound as a force in the span of a spantom.

Latenture—a latental or internally bound condition of a chemical substance, such as the solid, liquid and airiform and the variations within them, and also the organical.

Law of Nature—the mathematical form of action as fixed by the essence and conditions of the world stuff. Contravantism is the true worldlaw including that of Nature. The contravaxantic system contains the following sublaws: (1), it expresses galom or the stuffessence as the constant product of two varying factors; (2), it shows the inverse proportionality of these factors, the counter-forces materity and paterity; (3), it indicates the preponderant exertive forces in nature in the form of transantism; (4), it formulates the equilibration of the counter-forces in equalisations of stuffconditions and (5) it predicts the mean proportional of the forces after equalisations and their final equal strengths. All actions in the world, nature, being at bottom equalisations of stuffconditions, the contravaxantic formula of equalisation is the so-called *law of nature,* not made by a "lawgiving god," but invented by men. Of course the name

"law of nature" for this formula is wrong if "law" is taken as a made rule of action, but still we have to use the term.

Laws in Nature—the mechanical laws of space, time, volumes, masses, motion and circumstances. These mathematical forms are mechanical because mechanics is the science of addition and substraction in space and time, therefore, also of motion, masses and circumstances, especially the motion and rest of bodies. All these matters are not essential but circumstantial, and their forms are no "laws of nature," but laws in nature, which effect circumstantial modifications of nature. All laws in nature are mechanical while the law of nature is not mechanical, but for want of a term may simply be called the natural law.

Magnetism—the necessity in the character of the counter-forces to establish equilibrium between them. Repulsion and attraction are the two opposite inversely proportional energies of magnetism, representing the two forces of stuff. Materity repulses materity and attracts paterity; paterity repulses paterity and attracts materity. Indifference is the equality of the opposite magnetic energies.

Materialism—the philosophy postulating matter (cold-stuff or stuffified passive force) as the fundamental stuff of the world. It is the counterpart to genuine spiritualism. Its theory of nature is mechanical. It is untrue, because the worldstuff is not material, but galomal.

Materal—a condition on that side of the point of indifference where materity is preponderant.

Materity—the passive force of the worldstuff appearing as resistance, hardness and cold in various forms. It differs from hypothetical materiality in this that it is not absolute but correlative with paterity. It is the passive factor of galom.

Materopolar—material applied to a condition in the polarity where materity is preponderant. "Positive" electricity is matero-electricity.

Medialum—the medial substance taken from living persons by ghosts and used by them for perceptible manifestations.

Nature—from natura, birth, is the worldprocess of equalizing the conditions and equilibrating the counter-forces of

the worldstuff. It includes all actions, processes and happenings of any kind in the world. The infinity of the world which logically excludes anything outside or above the world, makes it impossible that anything could happen which were not natural. The "supernatural" is excluded as an impossibility, because it implies a limited world.

Nirvana—the condition of the ghosts when ripe or matured. The old nirvana meant that the lifefire of an organic individual was "blown-out," extinguished, that the individual was dead. It is symbolical for the condition of the ghosts being near dynamic equilibrium, apolarity, zeronity, indifference, etc., in which sense it is now used.

Nirvanaism—the keystone of galomalism as a conception of the world, therefore, the conception of the ghostworld as being in nirvana.

Nirvanalogy—the fourth branch of galomalistic philosophy; the science of nirvana or of everything pertaining to death or nirvana and the beings in it, as outlined in the 27th Article.

Pateral—the counterpart to materal. "Negative electricity" is patero-electricity.

Paterity—the active force of the worldstuff, appearing as softness and mainly as heat in its various forms. It is correlative to materity. Absolute pateriality would be identical with spirituality, the existence of which is denied by galomalism. Paterity is the active factor of galom.

Paterialisation—the more fitting term for spiritualisation, the opposite process to materialisation. It would be consistent with galomalism to have the terms pateralisation and materalisation, but they would cause inconvenience as new terms.

Pateropolar—conditions and substances in the pateral part of the world or on that side of zeronity where paterity is preponderant. Matero-polarity and patero-polarity are antipolar.

Polarity—the position of a stuffcondition or a substance on the one or the other side of the point of indifference. There are but two grand polarities in the inequilibrated part of the world, the matero- and the patero-polar. But in each chemical polarity there are "periods" of subpolarities caused

by spantomic peculiarities and latentures, which show some antipolarity and action among themselves, but in general belong to the two principal polarities.

Reactionless Substances—the substances which show no chemical reaction, take no important part in nature and have such insignificant preponderant and exertive forces and energies that they are imperceptible and practically dead. The inorganic reactionless substances consist of argon and its group and helium and its group; the organic reactionless substances form a large group called zeron, substantiating the ghostworld.

Religion—a primitive philosophy which personifies its hypothetical world entity, as a personal creator and ruler of the world. If the entity is supposed to be matter personified as a worldmother (Isis, Hera and others) it is a materialistic religion; if supposed to be spirit (heatstuff, ether) personified as a worldfather (Osiris, Jehova, Jupiter, etc.), it is a spiritualistic religion, and if supposed to be mind it borrows the spiritualistic personification of a fatherly world-ruler, a universal patriach. Without personification there is no religion, because pantheism is but a phrase. If the religions are stripped of their personifications they become simple materialistic, spiritualistic, mentalistic or dualistic philosophies.

Space—the mental abstraction of the extension of stuff effected by heat as required for being. Volume is, therefore, the true measure of stuff.

Spantom—an internally spanned part of a substance, vibrating through contraction and expansion, caused by increase and decrease of its counter-forces. It takes the place of the molecules of materialism.

Spantomic Constitution—the substitute for molecular constitution; the interior constitution of a substance in regard to the size, form, vibratus, proportion of forces, etc., latental in a certain substance.

Spirit or spiritus—breath of the sungod, radiated heat-stuff, ether, astralstuff, etc.; a hypothetical stuff the essence of which is heat. The existence of spirit is denied by galomalism.

Spiritualism—the philosophy postulating spirit or heat-

stuff as the fundamental stuff of the world; the counterpart of materialism. The word has been wrongly used as a name for mentalism, psychism, idealism and other notions postulating remnants of personifications as the world's entity.

Stuff—from stupa; the being (on) that fills or stuffs space, irrespective of its essence. For the essence of stuff, forces have been accepted which caused the postulation of hypothetical forcestuffs, such as matter, spirit, ether, etc. Galomalisms denies the existence of these force-stuffs and demonstrates the worldstuff as being galomal.

Temperatometer—an instrument similar to a thermometer but measuring temperature instead of heat. Temperature,, a phase of stuffcondition, is the proportion between directly transferible heat and cold, as more fully explained in the respective appendix.

Time—the mental abstraction of the progress of action or of nature. Time and space, including action, motion and mass, are of mechanical character and under the law of addition and substraction.

Transant—the figure in the system of the contravaxant which represents the preponderant forces which are, therefore, called the transant forces. The limiting curves of the transants are called the transodes. These new curves are a diagramatical element essential to galomalism.

Transantism—the law of the preponderant or transant forces, exertive in nature; it is a branch of contravaxantism.

Zerogroup—the known inorganic dead substances, argon, neon, kryton, xenon, etc., have been called the zerogroup because their chemical affinity and action is at zero. We can well use this term for all substances, organic and inorganic, which are grouped with their conditions around the zero of nature where the preponderant forces are nearly at zero. But the group consists of dead substances of prenatural existence and of such of natural origin, such as helium and zeron.

Zero of Nature—the point where nature as the process of equilibration of the counter-forces attains its object and ceases to be; the dead point in nature where the life process comes to a stop and standstill, because the normal, equilbrated condition of an amount of stuff in the form of an

organic being has been established. The zero of nature is also the natural zero of the various phases of stuffconditions. The zero of temperature (not heat) is in the middle of temperate imperceptible temperature which, therefore, is the zero of the temperatometer; it is also the natural zero of chemicature and the chemograph lying in the neighborhood of ordinary atmospheric oxygen; it is also to be the natural zero of the electrometer, constructed after the principle of the temperatometer; it is our own natural standpoint when judging conditions. The zero of nature is the dead point around which the products of life, the ghosts, are grouped with their conditions.

.*Zeron*—the large group of organic substances at or near the zero of nature or at the point of indifference of the forces. *Zeronity* is, therefore, another aspect of apolarity.

The American Society for Psychical Research,

154 Nassau Street, New York City,

of which Prof. Dr. James H. Hyslop, 519 W. 149th Street, New York City, is secretary and editor, and of which the author has been member from the start, has made it its special object to investigate mediumism and in an empirical manner prove "spiritism," though mostly through "psychical" mediumism. With impartial appreciation of the good work of this society, I deem it advisable and recommend to my readers to connect with this society and read its reliable reports.

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